

THE ROLE OF INDIVIDUAL NEEDS IN FEEDBACK
SEEKING BEHAVIOR

By

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TO MY SON

CHRISTOPHER MICHAEL KLICH

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Abstract of Dissertation Presented to the Graduate School
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This dissertation explores how individuals seek feedback. While previous feedback research has typically portrayed employees as relatively passive receivers of feedback, this dissertation considers individuals as active feedback seekers whose behavior is guided by the functions that feedback serves and the costs incurred in seeking feedback. It is hypothesized here that individual needs affect the choice of feedback-seeking strategy, the type of feedback sought, and the sources of feedback sought. Data were collected from three hundred seventy-four persons in five organizations.

The results suggest that high Need for Approval individuals are more likely to seek evaluative feedback than cognitive feedback. Individuals high in Need for Achievement are more likely to seek cognitive feedback than evaluative feedback. Persons high in Need for Approval are more likely to seek feedback from legitimate sources than from expert sources. However, individuals who seek feedback from expert sources have higher performance evaluations than those who seek feedback from legitimate sources. Individual differences did not significantly affect whether feedback was sought through direct inquiry or monitoring.

These results suggest that individuals need more feedback than they are currently getting, that they should be given cognitive feedback as much, if not more, than evaluative feedback, and that they need feedback from expert sources other than their supervisor. In addition, the results suggest that individuals who may need feedback the most may be least likely to seek it out because they fear receiving potentially embarrassing or negative information.

CHAPTER 1

FEEDBACK SEEKING AND INDIVIDUAL NEEDS

Feedback refers to information given to individuals that tells how well they are meeting their goals (both organizational and individual) and how their behavior is perceived and evaluated by others. Feedback may be provided by the task itself (Hackman & Oldham, 1976, 1980), by other individuals in the work place (Ilgen, Fisher & Taylor, 1979), and even by examining one's own behavior (Ilgen et al., 1979). Feedback represents an important topic in organizational behavior and has been recognized as an important determinant of individual and group behavior (Ammons, 1956). It strongly influences critical variables in organizational behavior such as performance, learning, motivation, and socialization (Feldman, 1989; Vroom, 1964). It has also been identified as a key factor for enhancing the overall effectiveness of organizations themselves (Nadler, Cammann & Mirvis, 1980).

This dissertation explores the role of the individual in the feedback process and is based on three fundamental ideas. First, the individual can be considered a proactive seeker of feedback, as well as a passive recipient of it. Second, individuals' personal motivations determine feedback seeking behavior in addition to situational factors. Third,

the choice of feedback seeking strategy, the type of feedback sought, and the source of feedback sought depend on the functions of feedback, as well as the costs of seeking feedback.

In this chapter the role of individual needs in feedback seeking behavior is developed. A brief review of feedback research, emphasizing the role of the individual, is presented. This is followed by discussions of the individual's motivation to seek feedback and the components of feedback seeking behavior. Next, hypotheses concerning the relationships between individual needs and feedback seeking behavior and between feedback seeking behavior and performance are presented.

Feedback from the Individual's Perspective

The largest body of research on feedback has been concerned with identifying the factors that affect the success of feedback in modifying individual behavior. These factors include the timing and frequency of feedback (Ammons, 1956; Ivancevich, Donnelly & Lyon, 1970), the expertise and credibility of the feedback source (Halperin, Snyder, Shenkel & Houston, 1976; O'Reilly & Anderson, 1980), the source of feedback (i.e., supervisor, peers, job itself) (Annett, 1969; Bourne, 1966; Hackman & Oldham, 1976), whether the feedback is given to an individual or a group (Hall, 1957; Zajonc, 1962), and feedback as an important

component of goal setting (Ivancevich, 1982; Latham & Yukl, 1975; Locke, Cartledge & Koepfel, 1968).

In general, most of the research on feedback has been conducted from the organization's point of view. Feedback has been treated as a resource that organizations use to keep members' behavior directed toward desired goals and to stimulate and maintain high levels of effort of members (Ashford & Cummings, 1983; Payne & Hauty, 1955; Vroom, 1964).

An alternative point of view, which will be adopted in this dissertation, considers feedback from the individual's perspective. This perspective is concerned with three key issues: the functions that feedback serves for the individual, the individual as an active feedback seeker, and the cost/benefit payoff that the individual incurs when seeking feedback. These issues will be discussed in this section.

Functions of Feedback

Research has identified several important functions that feedback serves for individuals. These functions can be classified into two general categories: approval-directed and performance-directed (Table 1).

The first category is comprised of three functions that are concerned with gaining and maintaining the approval of other persons. First, feedback reduces uncertainty for the individual by identifying behavior that indicates how

Table 1
Feedback Functions

| Function | Needs/Goals |
|-----------------------|---|
| Approval | |
| Uncertainty reduction | approval of others |
| Signalling | acceptance by others |
| Ego-defensive | self-protection |
| Performance | |
| Competence enhancing | self-esteem and self- efficacy |
| Goal directed | achieve personal goals |
| Behavior change | appropriate work behavior consequences of behavior |

behavior is perceived and evaluated by others (Greller & Herold, 1975). Second, feedback serves a signalling function, by identifying the relative importance and appropriateness of certain goals and values to which one must comply in order to gain approval (Vroom, 1964). Third, avoiding feedback can serve an ego defensive function. When abilities or performance are low, individuals seek to protect vulnerable self-esteem by avoiding feedback or restricting information search (Janis & Mann, 1977; Jones & Gerard, 1967; Miller, 1976; Zuckerman, Brown, Fox, Lathin & Minasian, 1979).

The second category is comprised of those functions related to improving and enhancing job performance. First, feedback is competence enhancing; it provides information that is necessary to build self-esteem and self-efficacy (White, 1959; Bandura, 1986). Second, feedback provides information about the extent to which personal goals are being met (Ashford & Cummings, 1983; Nadler, 1977). Third, feedback helps the individual develop appropriate work behaviors (Etzioni, 1961; Porter, Lawler & Hackman, 1975; Schein, 1968). Fourth, feedback provides information about the distributions of rewards and sanctions that result from particular behaviors, so that individuals can change their behaviors accordingly (Bandura, 1986; Porter & Lawler, 1968).

Research on the functions of feedback has been concerned with how these functions affect the individual's acceptance of, and willingness to comply with, feedback from supervisors (cf. Greller & Herold, 1975; Ilgen et al., 1979). It is generally argued that individuals will respond differently to different types of feedback from different sources. For example, individuals for whom feedback helps to identify appropriate behaviors tend to accept and comply with feedback which provides specific examples of behavior (Bandura, 1986).

The Individual as an Active Feedback Seeker

Research that has considered feedback from the individual's perspective has generally portrayed the individual as a passive information receiver. This stream of research has concentrated on how the individual perceives feedback. It has been concerned with how various individual and situational factors influence the individual's acceptance of and response to feedback (Ilgen et al., 1979).

The present study will consider, instead, the individual as a active information monitor and seeker (Ashford & Cummings, 1983; Brett, Feldman & Weingart, 1988; Feldman & Brett, 1983; Greller & Herold, 1975; Greller, 1980; Hanser & Muchinsky, 1978; Weiss, 1977). This position argues that few organizations give individuals adequate information about their behavior (Campbell, Dunnette, Lawler

& Weick, 1970). Individuals must, therefore, actively seek the information that they need about their behavior.

Numerous studies support the notion that individuals are active feedback seekers rather than passive feedback receivers. For example, individuals tend to search for feedback which is consistent with their self-concept (Swann & Read, 1980) and with their goals and expectations regarding performance (Tyler & Galegher, 1982; Vallacher, 1980). In addition, socialization literature suggests that individuals entering an organization actively seek information about organization roles by attending to the behavior of key role models rather than relying on reinforcement (Weiss, 1977). Finally, newcomers to organizations tend to actively seek feedback as a way of coping with organizational entry and to capitalize on initial adjustment (Brett et al., 1987; Feldman & Brett, 1983).

Cost of Seeking Feedback

The study of feedback is based primarily on the assumption that feedback is beneficial. However, recent research has recognized that not only does feedback seeking allow the individual to fulfill certain needs and goals, but also that it entails a certain amount of risk. Ashford and Cummings (1983) propose that individuals take the costs into account and seek feedback in ways that minimize costs.

Three costs associated with actively seeking feedback have been identified (see Table 2). They are effort costs, face loss costs, and inference costs (Ashford & Cummings, 1983). Effort costs are those associated with the level of effort required to obtain feedback. This cost may involve physical or cognitive effort. Physical effort is concerned with the time it takes to seek feedback as well as the behavior of seeking feedback. It might include tracking the supervisor, asking questions, or offering explanations. The amount of physical effort may depend, for example, on the availability of the supervisor or how familiar the supervisor is with the persons performance.

Cognitive effort is concerned with the amount of attention and inference required to obtain feedback. In general, it entails diverting attention from other things, paying attention to the behavior of other persons, and making sense out of the behavior of others. The amount of cognitive effort depends on how ambiguous the job or behavior is. In very ambiguous situations, individuals must exert greater effort in order to obtain consistency and consensus information.

The second type of feedback seeking cost is face loss. Face loss costs are incurred because feedback seeking is a public event, and the individual's behavior is open and subject to judgment by others. There are three risks associated with face loss costs. First, the feedback seeker

Table 2
Costs of Seeking Feedback

| Cost | Depends on | Example |
|-----------|--|---|
| Effort | | |
| physical | availability of feedback source familiarity of source with behavior | look for supervisor ask questions explain behavior |
| cognitive | ambiguity of job or behavior | divert attention observe others interpret behavior |
| Face loss | public event and potential judgment by others low self-esteem | rejection reveal insecurity loss of esteem criticism |
| Inference | ambiguity or complexity of behavior need for accuracy | bias in perception incorrect inference motivation of feedback source |

may lose face if his or her request for feedback is rejected. Second, the individual may reveal potentially damaging information such as insecurity or lack of confidence. Others may even judge the person to be trying to win favor with the supervisor. Third, the feedback seeker risks losing self and other's esteem by exposing him- or herself to potentially negative information or criticism.

The final cost associated with feedback seeking is inference cost. These costs involve accurately interpreting the behavior of the self and others and the motivation of the feedback giver. Inference costs are generally higher when feedback or behavior is ambiguous or complex, when the motives of the feedback giver are unclear, or when the feedback giver is untrustworthy.

This section has proposed that feedback serves different functions for the individual, that the individual is an active feedback seeker, and that the individual incurs costs in seeking feedback. The next section develops the role of individual motivations, rather than situational determinants, in feedback seeking.

Individual Motivation to Seek Feedback

Feedback is an individual resource which is based on motivation for seeking certain types of feedback, from certain sources, and using certain types of strategies (Ashford & Cummings, 1983; Feldman & Brett, 1983; Larson,

1989). For the most part, this research has been concerned with situational causes of feedback seeking, such as the amount and type of feedback given by supervisors (Larson, 1989), and whether the individual is a new hire or a job changer (Feldman & Brett, 1983). Ashford and Cummings (1983) propose that individuals will actively seek feedback when the amount or type of unsolicited feedback is inadequate to fulfill individual goals and needs. Moreover, they argue that the costs associated with feedback seeking are determined by situational factors such as the complexity of performance, motivations of the feedback giver, or the availability of the supervisor (Ashford & Cummings, 1983).

An alternative to the situational determinants of feedback seeking argues that feedback seeking is guided by individual characteristics. Recent social psychology research provides evidence that some individual differences have an effect on feedback seeking behavior, independent of the situation. Feedback seeking has been found to be related to characteristics such as self-concept of ability (Meyer & Starke, 1982), anxiety (Battman, 1988), and self-consciousness (Carver, Antoni & Scheier, 1985; Scheier & Carver, 1983). For example, Carver et al. (1985) found that individuals who are self-conscious are less likely to ask for performance feedback than those who are not self-conscious. In addition, self-esteem and need for

achievement may be associated with preferences for different types of feedback (Jacobs, Berscheid & Walster, 1971; Weiner, 1978).

These studies suggest that the functions of feedback and the costs of seeking feedback may be related to stable individual differences. This study will extend the research on feedback by examining role of individual differences in feedback seeking.

Individual Needs and Feedback Seeking Behavior

Hollenbeck and Whitener (1988) propose that the individual differences that are most likely to have an effect on motivation and subsequent behavior are those which reflect differences in values and needs. Recall that the functions that feedback serves are broadly classified into two categories, approval and performance directed and that the costs of seeking feedback are based on self-protection or information accuracy. This study will examine differences in feedback seeking behavior between individuals who are motivated by approval and self-protection and individuals who are motivated by performance excellence and information accuracy. Specifically, this dissertation proposes that the differential effects of values and needs on feedback seeking behavior will be observed when comparing Need for Approval to Need for Achievement.

Need for Approval

The Need for Approval has been inferred from responses on the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960). The scale was originally developed as a measure of social desirability response bias. However, numerous studies have found that MCSD scale scores are related not only to bias in self reports, but also to behavior and performance (Crowne & Marlowe, 1964; Ganster, Hennessey & Luthans, 1983; Spector, 1987). Therefore, the scale may be interpreted as a measure of a stable individual need which is related to specific behaviors (Crowne & Marlowe, 1964; Spector, 1987).

The trait is generally defined as the need to seek approval. However, reviews of the research that use M-CSD, conclude that the scale may more accurately and validly measure the need to avoid disapproval (Crowne & Marlowe, 1964; Crowne, 1979; Millham & Jacobson, 1978; Strickland, 1979). The need to avoid disapproval arises because of low self-esteem. Individuals with a high need to avoid disapproval depend on favorable evaluations by others. They tend to use defensive, avoidant behaviors in order to protect their weak self-esteem (Crowne 1979; Crowne & Marlowe, 1964; Millham & Jacobson, 1978; Strickland, 1979).

Because of their low self-esteem, feedback would likely serve the ego-defensive function for individuals high in Need for Approval. The uncertainty reduction function of

feedback would be concerned with whether others approve of their behavior. Feedback would also serve the signaling function for approval dependent individuals by identifying organizational goals and values with which he or she should comply in order to gain acceptance.

Because of their low self-esteem and reliance on self-protective, defensive behavior, persons high in Need for Approval are likely to incur very high face loss costs when seeking feedback. They are likely to perceive that physical and cognitive effort costs are not as high as potentially losing face. Also, the risks associated with incorrect inference are more likely to be lower than those associated with face loss. It also seems likely that persons high in Need for Approval may prefer inaccurate inferences to accurate ones. When they are biased toward a more favorable evaluation, inaccurate inferences serve to avoid esteem threatening feedback. Moreover, since they are concerned with others' approval rather than performance enhancement, approval dependent persons are less likely to be concerned the accurate information necessary for excellent performance.

Need for Achievement

The Need for Achievement (achievement motivation) is generally conceptualized as an important determinant of aspiration, effort, and persistence when an individual expects that performance will be evaluated in relation to

some standard of excellence (Atkinson, 1958; Weiner, 1978). This is a multidimensional personality construct characterized by a moderate aspiration level, preference for moderate level of risk, striving for upward mobility, persistence in task completion, desire to complete interrupted tasks, partner choice based on competence, seeking recognition through excellence, and strong desire to perform well (Atkinson, 1958; McClelland, 1985; Weiner, 1978). Persons who have high achievement needs are resistant to social influence, perceive instrumentality of intermediate performance for long-range goals, bias probabilities of success upward, attribute success to ability, perceive themselves as high in ability, and have a high positive self-concept (Atkinson, 1958; Weiner, 1978).

For persons high in achievement motivation, feedback is likely to serve many functions. First, feedback will provide competence creating information and reduce the uncertainty regarding behaviors appropriate for excellent performance. Second, because of the instrumentality of immediate performance to long range goals, feedback will provide important goal relevant information for individuals high in Need for Achievement. Third, because high achievement motivated individuals strive for excellence in evaluative situations, feedback will provide information about appropriate behavioral changes.

When seeking feedback, persons who are high in Need for Achievement are likely to be concerned with inference costs; they want accurate feedback regardless of the other costs which they might incur. Because they are persistent and perceive the instrumentality of excellent performance for long term goals, high achievement motivated individuals are likely to perceive that accuracy is more important than the effort incurred in obtaining feedback. In addition, their high self-esteem indicates that they are less concerned with face loss costs than with inference costs.

The foregoing discussion argues that Need for Approval and Need for Achievement are differentially related to feedback seeking behavior because of the different goals and functions of feedback and the costs incurred in seeking feedback among these persons. These differences are related to the strategies individuals use to seek feedback, the types of feedback individuals seek, and the sources from which the individual seeks feedback. We turn now to describing these three components of feedback seeking behavior.

Feedback Seeking Behavior

Feedback seeking behavior is comprised of three components: the strategies individuals use to seek information about their performance, the type of information

Table 3

Feedback Seeking Strategies

| Strategy | Behavior | Costs |
|-----------------------|--|----------------------|
| Monitoring | observation and inference | effort inaccuracy |
| Reflective Appraisal | observe others behavior toward and reaction to self | |
| Comparative Appraisal | compare own behavior and reaction from supervisor to that of comparison others | |
| Inquiry | ask for feedback | effort face loss |
| Direct Inquiry | ask specific questions about performance | |
| Indirect Inquiry | make requests or comments related to performance | |

that they seek, and the source from which they seek feedback.

Strategies for Seeking Feedback

This dissertation will examine two strategies of seeking feedback, monitoring and inquiry (see Table 3) (Ashford & Cummings, 1983). Monitoring strategies are concerned with observing and interpreting information from the work environment. These observations and interpretations are based on individual goals and the function that feedback serves for the individual (Ashford & Cummings, 1983; Cohen & Ebbesen, 1979; Suchman, 1971; Tyler & Galegher, 1982; Vallacher, 1980).

There are two types of monitoring behavior--reflective appraisal and comparative appraisal. When using reflective appraisal, the individual observes and interprets the reactions and responses of others to his or her behavior (Jones & Gerard, 1967). The interpretation may depend on whether the response is positive or negative and on certain characteristics of the source (Ilgen et al., 1979). For example, an individual may interpret his or her boss's friendly greeting as an indication of good performance.

The second type of monitoring is comparative appraisal. The individual compares his or her behavior to others' behavior (Jones & Gerard, 1967). Comparative appraisals may be based on persons described in organizational stories and myths (Meyer & Rowan, 1977), persons who are successful

(Ashford & Cummings, 1983; Weiss, 1977), or persons who attend particular meetings or social gatherings (Ashford & Cummings, 1983). For example, an individual is included in a special task committee, whose other members have been rapidly promoted. That individual might infer that his or her performance was excellent because of being included on the committee with persons whose performance resulted in rapid promotion.

In contrast to monitoring, inquiry involves directly asking relevant others for their perceptions or evaluations (Ashford & Cummings, 1983). Inquiry involves not only direct questions about performance, but also indirect questions that elicit comments about performance (Ashford & Cummings, 1983). These indirect questions might include asking for additional work that requires a certain level or type of performance or asking for promotions or raises which would be contingent on performance.

Types of feedback

This study will examine two types of feedback--evaluative and cognitive (see Table 4). Evaluative feedback, also referred to as outcome feedback, provides general ratings and information about how well the individual is meeting performance goals. Typically, evaluative feedback is expressed in terms such as good and bad, success and failure, or right and wrong.

Table 4

Types of Feedback

| Feedback | Type | Examples |
|------------|--------------------------------|--|
| Evaluative | general ratings or comparisons | good or bad success or failure excellent or poor |
| Cognitive | specific objectives or goals | examples of behavior suggestions on how to improve frequency of behavior |

Cognitive feedback provides the individual with specific information about appropriate behaviors necessary to achieve goals (Herold & Greller, 1977). This type of feedback is characterized by specific examples of work behaviors, suggestions on how performance can be improved, or specific levels of goal achievement.

Sources of feedback

In most organizations supervisors and coworkers are important sources of feedback. This dissertation will examine two types of sources--legitimate and expert (see Table 5). Legitimate sources are those persons that control the rewards and sanctions that are received or anticipated by the recipient. Expert sources are those persons who possess the expertise necessary to judge performance.

Supervisors possess legitimate authority, but their subordinates do not necessarily perceive them as being experts. Expertise is attributed to a feedback source when the source has the opportunity to observe relevant behaviors, when the source possesses the education, training, and skill to adequately perform the target job, and when the source is trustworthy (Halperin et al., 1976; Huse, 1967; Tuckman & Oliver, 1968). Supervisors are not experts for two major reasons.

First, supervisors do not always have the opportunity to observe subordinate performance. For example, Tuckman and Oliver (1968) found that student ratings of teaching has

Table 5
Sources of Feedback

| Source | Characteristics | Examples |
|------------|---|-------------------------------|
| Legitimate | hierarchical authority high status control rewards and sanctions biased hidden agendas | supervisors other managers |
| Expert | skill, knowledge, training frequently observes others performance unbiased trustworthy | peers subordinates |

a more positive effect on subsequent teaching performance than did supervisor ratings. Apparently teachers felt that supervisors were not able to observe classroom performance whereas students were. In addition, supervisors are often perceived by their subordinates as judgmental and not helpful, thereby reducing their expertise (Huse, 1967).

Second, supervisors are not always considered trustworthy. In most organizations the supervisors' feedback to subordinates, both formally and informally, serves as a guide to performance, the standard against which the individual's performance will be judged, and the criterion for distributing rewards and administering sanctions. For all but the simplest and most routine task, the evaluation of performance depends on the subjective judgment of the supervisor (Smith, 1976). Most performance evaluations are subject to any number of rating errors including ambiguous criteria, failure to consider all important aspects of a job, and rater biases and hidden agendas (Bernardin & Villanova, 1986). Many of organizational resources (such as raises, bonuses, and promotions) are scarce and equitable distribution depends on performance differences that are not easily discernible (Pfeffer, 1981).

Therefore, in many organizations, coworkers and, in some cases, subordinates may be considered experts. They are more able to observe the individual's behavior on a

regular basis (Tuchman & Oliver, 1967) and they are often perceived as trustworthy (Huse, 1967). In addition, since they perform the same or a similar job, coworkers are often viewed as knowledgeable and skillful.

Having described feedback seeking strategies, types of feedback sought, and sources of feedback sought, we now turn to developing hypotheses about the relationships between approval and achievement needs and the components of feedback seeking behavior.

Hypotheses about Individual Needs and Feedback Seeking Behavior

Three sets of hypotheses are developed in this section and are summarized in Table 6. The first four hypotheses concern individual needs and feedback seeking strategy, the second four concern individual needs and types of information sought, the last four concern individual needs and sources of feedback sought.

Individual Needs and Feedback Seeking Strategy

The choice of feedback seeking strategy depends on the value that feedback has for the individual, the utility of feedback for fulfilling individual's goals, and the costs incurred in obtaining feedback (Ashford & Cummings, 1983). In general, individuals will use a lower cost feedback seeking strategy first and will only use a higher cost strategy if the lower cost one fails to provide the feedback consistent with the individuals' needs, values, and goals.

Table 6
Summary of Hypotheses 1 to 12

| Need | Strategy | Type of Feedback | Source of Feedback |
|-------------|--|----------------------------|-----------------------------|
| Approval | reflective and comparative appraisal (H1, H2) | evaluative (H5, H6) | legitimate (H9, H10) |
| Achievement | direct and indirect inquiry (H3, H4) | cognitive (H7, H8) | expert (H11, H12) |

Monitoring strategies will entail more effort than inquiry strategies when behaviors are ambiguous and when there are changes in the evaluation criteria. In these situations, feedback seekers will more likely use inquiry strategies. Greater effort is required for inquiry strategies when the availability to the source is limited, the sources are less familiar with the feedback seeker's behavior, or the behavior is complex. Inquiry strategies will be used in these situations (Ashford & Cummings, 1983).

Monitoring strategies merely involve observing others; inquiry strategies involve interaction with others. This public interaction opens and subjects the feedback seeker to the judgment of others. In addition, inquiry strategies may reveal something about the seeker that he or she may not want known, such as uncertainty or low self-confidence. Face loss costs are higher when individuals use inquiry strategies (Ashford & Cummings, 1983).

Although they are incurred for both monitoring and inquiry strategies, inference costs are likely to be higher for monitoring than inquiry. Interpreting the work situation, the behavior of others, and one's own behavior may be guided by individuals' motives, expectations and goals. Monitoring may result in a biased interpretation that is quite different from the actual evaluation by others. When feedback accuracy is important, individuals

are more likely to use inquiry strategies (Ashford & Cummings, 1983).

Since all three costs are involved, simultaneously, when they seek feedback, individuals choose the strategy that entails the lower costs, based on their individual goals and needs. The choice of feedback seeking strategy also depends upon the function that feedback serves for the individual (Battman, 1988; Larson, 1989).

Need for Approval and feedback seeking strategy

The fear of negative evaluation or disapproval combined with low self-esteem make face loss cost very high for individuals high in Need for Approval. Their dependence on the approval of others and the approval functions that feedback serves for them make face loss costs even more salient. These individuals would rather have no information than risk receiving negative or ego threatening information (Millham & Jacobson, 1978). For example, Efran and Boylin (1967) conducted a laboratory study in which subjects were given a choice of tasks. One task required that they ask for evaluation of their performance; the other did not require asking for an evaluation. Persons high in Need for Approval chose the task that did not require asking for an evaluation.

In addition, several studies reveal that persons high in Need for Approval actively monitor their environment. They demonstrate more awareness and responsiveness to

subtle, positive evaluative contingencies than persons low in Need for Approval (Crowne & Strickland, 1961; Dixon, 1970; Marlowe, Beecher, Cook & Doob, 1964; Milburn, Bell & Koeske, 1970; Strickland, 1965; Strickland & Jenkins, 1964). These studies also suggest that information accuracy is less important than the risk of losing face. Specifically, approval dependent persons are less sensitive to and may even filter out negative information concerning performance (Jacobson & Ford, 1966; Milburn et al., 1970; Strickland, 1965; Strickland & Jenkins, 1964).

For individuals high in Need for Approval, the face loss costs associated with inquiry strategies are likely to be higher than the inference and cognitive effort costs associated with monitoring strategies. Thus,

Hypothesis 1 - Individuals who are high in Need for Approval are more likely to use monitoring strategies than individuals who are high in Need for Achievement.

Hypothesis 2 - Individuals who are high in Need for Approval are more likely to use monitoring strategies than inquiry strategies.

Need for Achievement and feedback seeking strategy

Persons with a high achievement motivation view evaluation as important information regarding their competence, ability, and how performance can be improved (Weiner, 1978). Because of their high self-esteem, they are not threatened by negative evaluation, and prefer to risk negative evaluation rather than to have inaccurate

information about performance (Weiner, 1978). In experimental studies, individuals with high achievement motivation request more feedback than those who are not high in achievement motivation (Battman, 1988).

The desire for intermediate difficulty tasks among individuals high in Need for Achievement indicates a preference for personal feedback or knowledge about oneself (Weiner, 1978). Weiner (1978) argues that intermediate difficulty tasks (rather than easy or very hard ones) provide more accurate information regarding performance and how performance can be improved.

Because achievement motivation persons prefer specific, diagnostic information about their performance, the physical effort and face loss costs associated with inquiry will be low and the inference costs of monitoring will be high. In other words, achievement motivated individuals prefer to risk negative evaluation rather than to have incomplete or inaccurate information. Therefore,

Hypothesis 3 - Individuals who are high in Need for Achievement are more likely to use inquiry strategies than individuals who are high in Need for Approval.

Hypothesis 4 - Individuals who are high in Need for Achievement are more likely to use inquiry strategies than monitoring strategies.

Individual Needs and Types of Feedback Sought

Several studies suggest that there might be systematic relationships between the functions that feedback serves for

the individual and whether that individual seeks cognitive or evaluative feedback. For example, Battman (1988) argues that the informational value of feedback is related to the individual's motivation to seek feedback. That is, individuals want and need different types of feedback and will seek out the type of feedback that they want and need. Moreover, Battman (1988) suggests that individuals differ in their motivation to seek feedback with diagnostic, informational, emotional, and performance value, depending on the function that feedback serves for them. In addition, Larson (1989) proposes that individuals seek out types of information that confirm or enhance their self-image (positive) and avoid types of information that is threatening (negative). Battman (1988) observed that individual differences (such as anxiety and self-confidence) are important determinants of the individual avoidance of negative information.

Some researchers have found that individual needs, such as Need for Achievement, are related to preferences for certain types of feedback (Buckert, Meyer & Schmaltdt, 1979; Halisch & Heckhausen, 1977; Sachs, 1982). For example, Weiner (1978) argues that the moderately difficult task preferred by persons high in Need for Achievement indicates that individual prefers feedback that is cognitive or informational.

Need for Approval and type of feedback sought

Several studies have found that approval dependent persons prefer and seek out evaluative feedback. For example, Kanfer and Marston (1964) studied the acceptance of different types of information. They found that individuals high in Need for Approval prefer reflective (i.e., evaluative) comments from evaluators (Kanfer & Marston, 1964). In addition, approval dependent persons tend to judge themselves on an evaluative good--bad dimension (Pervin & Lilly, 1967) and tend also to judge others on the same dimension (Crowne, 1979). This indicates that feedback does not need to be specific in order to meet the goals of the individual high in Need for Approval.

The preference for evaluative versus cognitive feedback among persons high in Need for Approval is also suggested by research on feedback seeking strategies. For example, Efran and Boylin (1967) report that persons high in Need for Approval prefer to avoid tasks which provide specific performance feedback. In addition, Battman (1988) has demonstrated that persons with low self-esteem avoid specific performance feedback which potentially contains negative information.

Because it serves signalling, ego defensive, and uncertainty reduction functions, feedback does not need to be specific. All the approval dependent person needs to know is whether or not others approve or disapprove of his

or her behavior. Since this individual tends to avoid information that could signal disapproval,

Hypothesis 5 - Individuals who are high in Need for Approval are more likely to seek evaluative feedback than individuals who are high in Need for Achievement.

Hypothesis 6 - Individuals who are high in Need for Approval are more likely to seek evaluative feedback than cognitive feedback.

Need for Achievement and type of feedback sought

There are no studies which directly address the preference for evaluative versus cognitive feedback among individuals high in Need for Achievement. However, several studies suggest that these persons prefer and seek out cognitive feedback. For example, Battman (1988) found that individuals with high achievement motivation, and high concepts of ability try to exploit the diagnostic value of feedback. Because it is more specific, cognitive feedback is likely to contain more diagnostic information than evaluative feedback.

Individuals high in Need for Achievement are concerned with performance excellence. High achievement motivated persons prefer tasks of intermediate difficulty, probably due to the higher diagnostic value of these tasks (Trope, 1975; Trope & Brinkman, 1975). Weiner (1978) argues that the intermediate difficulty tasks preferred by individuals high in Need for Achievement indicate their preference for specific information. That is, intermediate difficulty

tasks provide the most information regarding ability and performance and how performance can be improved.

In addition, in their review of feedback research, Ilgen et al. (1979) argue that individuals with high self-esteem and high achievement needs prefer information that conveys a sense of competence and control over the task. They argue that competence and control information is specific, explicit, and contains both positive and negative information.

The preference for intermediate difficulty tasks and preference for specific performance information suggests that,

Hypothesis 7 - Individuals who are high in Need for Achievement are more likely to seek cognitive feedback than individuals who are high in Need for Approval.

Hypothesis 8 - Individuals who are high in Need for Achievement are more likely to seek cognitive feedback than evaluative feedback.

Individual Needs and Sources of Feedback

The study of feedback seeking behavior has viewed the supervisor as the source of the feedback that individuals seek (Ashford & Cummings, 1983; Battman, 1988; Larson, 1989). However, the previous discussion on source characteristics indicates that individuals may seek feedback from any of a number of sources including subordinates, peers, or supervisors. Ashford and Cummings (1983) suggest that the costs of seeking feedback may be related to

characteristics of the source. Specifically, they propose that when an individual trusts the source of feedback, he or she will incur lower inference costs when using inquiry strategies. Therefore, it seems likely that individuals would tend to seek feedback from expert or legitimate sources or both.

Need for Approval and source of feedback sought

Research on the behavior of persons high in Need for Approval indicates a strong preference for approval from high status individuals. For example, in experimental studies they tend to agree with inaccurate statements made by others, and the higher the status, the more they agree (Miller, Doob, Butler & Marlowe, 1965). That is, they will agree with whatever high status persons say.

Ilgen et al. (1979) concluded that extrinsic rather than intrinsic motivation is related to acceptance of and willingness to comply with feedback from supervisors. For persons high in Need for Approval, the intrinsic meaning of behavior is not as important as is the evaluation of high status evaluators (Dixon, 1970).

Moreover, in related research, Baron and his colleagues have found that externals (as measured by Rotter's (1966) Internal--External Locus of Control Scale) rely on feedback from supervisors to develop expectations about the relationship between performance and extrinsic rewards (Baron, Cowan & Ganz, 1974; Baron & Ganz, 1972). Their

research indicates that externals are more concerned with feedback from supervisors or powerful others. Externals are similar to those who are high in Need for Approval because they are concerned with the approval of others, they have low self-esteem, and use defensive behaviors.

Individuals high in Need for Approval depend on the approval persons with high legitimate authority or status and rely on them to indicate which goals and values are important. Thus,

Hypothesis 9 - Individuals who are high in Need for Approval prefer, and are more attentive to, feedback from high status individuals than individuals who are high in Need for Achievement.

Hypothesis 10 - Individuals who are high in Need for Approval prefer, and are more attentive to, feedback from high status individuals than from individuals who are perceived to be expert.

Need for Achievement and source of feedback sought

Because they are more concerned with successful task performance, persons who are high in achievement motivation seek information from the sources that help them to demonstrate excellence in performance through competent problem-solving (Battman, 1988). In his review of research on Need for Achievement, Weiner (1978) concluded that high in Need for Achievement are more likely to seek information about their jobs from individuals who know the job best, even if that person is a peer.

In related research, Weiss (1977) reported that individuals with high self-esteem modeled the behavior of their supervisors less than those with low self-esteem. In addition, in numerous studies on internal--external locus of control, Baron concluded that internals, characterized by high self-esteem and confidence, rely less on feedback from high status individuals than do externals (Baron et al., 1974; Baron & Ganz, 1972).

Individuals high in Need for Achievement are those whose needs can be fulfilled through excellent task performance. They have high self-esteem and confidence in their ability and performance. Their preference for feedback that conveys a sense of competence and a sense of personal control suggests that,

Hypothesis 11 - Individuals who are high in Need for Achievement prefer, and are more attentive to, feedback from individuals who are perceived to be expert than individuals who are high in Need for Approval.

Hypothesis 12 - Individuals who are high in Need for Achievement prefer, and are more attentive to, feedback from individuals who are perceived to be expert than from individuals who are high status.

Hypotheses about Feedback Seeking Behavior and Performance

In this section, three hypotheses about the relationship between feedback seeking behavior and performance are developed. The first concerns the effect

of feedback seeking strategy on performance; the second relates type of feedback to performance; and the third concerns the relationship between source of feedback sought and performance.

Feedback Seeking Strategy and Performance

The effect that feedback seeking strategy has on performance is a consequence of the accuracy of the information that the individual receives. Monitoring requires attention to cues and inferences about the meaning of the cues and is subject to the same biases and errors that characterize general information processing (e.g., Nisbett & Wilson, 1977; Ross, 1977). Monitoring may result in selective attention to the cues that the individual perceives as most salient. Different needs, functions of feedback, and costs of seeking feedback will likely make some cues more salient than others, and the cues that are more salient may not be accurate or those that are performance related. Thus,

Hypothesis 13 - Individuals who use an inquiry strategy will have higher performance evaluations than individuals who use a monitoring strategy.

Type of Feedback Sought and Performance

Feedback enhances performance because it provides information about how the environment can be changed, thereby enhancing a sense of efficacy or competence (Bandura, 1986). It also provides information about progress toward and attainment of relevant goals (Locke,

Shaw, Saari & Latham, 1981). The more specific the feedback, the greater the effects on performance (Annett, 1969; Kopelman, 1986; Ilgen et al., 1979).

Most research has indicated that cognitive, rather than evaluative, feedback is important for high levels of performance (Kopelman, 1986). Cognitive feedback is a more powerful motivator than evaluative feedback because it provides information that helps to establish, maintain, or strengthen various perceived effort reward contingencies (Ilgen et al., 1979). Nonspecific feedback (evaluations of superior, adequate, or poor) has only a minimal effect on task performance (Montague & Webber, 1965). Therefore,

Hypothesis 14 - Individuals who seek cognitive feedback will have higher performance evaluations than individuals who seek evaluative feedback.

Source of Feedback Sought and Performance

Feedback research suggests that performance is dependent on acceptance of and willingness to respond to feedback (Ilgen et al., 1979). Acceptance of feedback is based on perceived credibility of the source; willingness to respond to or comply with feedback is based on the perceived power of the source.

Supervisors or high status persons may not be credible. It was argued previously that supervisors are not often perceived as credible for two reasons. First, they may not often observe the individual's performance. Second, individuals often perceive that supervisors are not

trustworthy. Therefore, in many organizations, coworkers are often considered the real experts.

Power is dependent on the extent to which the source provides unambiguous performance reward contingencies (Ilgen, et al., 1979). Supervisors may not be particularly powerful for two important reasons. First, rewards in most organizations are scarce and equitable distribution of those resources may depend on performance differences that are not easily discernable (Pfeffer, 1981). Second, distribution of rewards may be based on factors other than performance, such as favoritism or likability (Duarte, 1988).

It seems likely then, that supervisors or high status individuals do not have the credibility and that,

Hypothesis 15 - Individuals who seek feedback from persons who are perceived as expert are more likely to have higher performance evaluations than individuals who seek feedback from high status persons.

In the next chapter, the research setting, the scales used to measure the variables, the method employed to test the hypotheses, and preliminary analyses are described. Chapter 3 presents the results of a series of regression analyses that were used to test the hypotheses while the last chapter presents a discussion of the results and implications for future theory and research.

CHAPTER 2 RESEARCH METHODOLOGY

This chapter deals with the research methodology of the dissertation. It is divided into six sections: a description of the research settings; the procedures used to collect data from respondents; description of the research instrument; descriptive statistics on the scales and subscales; the results of maximum likelihood factor analyses; and a discussion of the correlations among the variables.

Research Settings

Data were collected from five sources, all located in the southeast: a local subsidiary of a national newspaper chain, one branch store of a large department store chain, a locally owned furniture store, and two universities.

Newspaper Sample

Data were collected from 75 members of a local subsidiary of a national newspaper chain, which employs 225 people. This company produces a daily newspaper which serves a local community with a population of approximately 125,000. Production of the daily newspaper involves reporting on local and state news events, compiling wire service news stories, incorporating syndicated news,

opinion, and special interest columns, and printing and distribution of the newspaper. In addition, the company has contracts for preproduction and printing for several weekly publications, including Sunday supplements for other newspapers, weekly special interest supplements for other newspapers, and several weekly newspapers.

There were 39 female subjects and the average age of the subjects was 35 years old. All of the respondents have at least completed high school. All of the subjects worked full-time. The sample was 65% Caucasian and 35% Black. Average organizational tenure was 5.9 years; average job tenure was 5.5 years. Five percent were supervisors. The following six departments of the newspaper took part in the study: classified sales, circulation, production, preproduction, advertizing, news, and various support departments.

Department Store Sample

Data were collected from 72 employees of a branch store (out of a total of 125 employees) which is part of a department store chain. The department store sells up-scale clothing and accessories for infants, children, teens, and adults.

Three groups of employees participated in the survey: sales associates, sales supervisors, and office staff. Ninety-five percent of the employees who were scheduled to work on the days on which the survey was administered

completed the questionnaire. The employees that did not participate were not scheduled to work on the days on which the survey were administered, were on vacation, or were absent. Seventy-nine percent are women, sixty-five percent work full-time, all have completed high school, eighty-three percent are Caucasian. The average age is 32 years old. Most have been employed at the store less than two years.

Furniture Company Sample

Data was collected from 104 members of a furniture company in a large city in the south. The company sells moderately priced furniture in stores located throughout the metropolitan area. The stores are supported by 125 warehouse and office staff. Thirty percent are male, sixty percent are Caucasian. All have completed high school, and ten percent have at least attended college. The respondents have worked for the company an average of 2.9 years. The average age is 33 years old.

University Alpha

Data were collected from 57 students enrolled in business policy and a personnel courses at the University of Alabama at Birmingham. The university offers full and part time undergraduate and graduate degree programs. Courses for both programs are offered during the day and in the evening. Only data collected from students employed at least part-time were included in the study. The students work in a variety of occupations from entry level, minimum

wage to middle management, including medical, accounting and bookkeeping, sales, customer service, technical, food service, education, and management. Sixty-five percent are male, ninety-six percent are Caucasian. Eighty-eight percent work full-time. They have worked for their current employer an average of 4.46 years. The average age is 31 years old, and all have completed a 4 year undergraduate program.

University Beta

Data was also collected from 51 students enrolled in an Organizational Behavior course at a the University of Florida. The College of Business Administration offers undergraduate and graduate degrees. Students who participated in this research were pursuing full-time undergraduate business or full-time graduate accounting degrees. Only data from students working at least part-time were used in this research.

The students work in a variety of jobs including clerical, sales, food service, stock and delivery, accounting and bookkeeping, and technical. Sixty percent are female, and ninety-five percent are Caucasian. The average age is 24 years old. Fifty-four percent have worked for their employer less than one year.

Procedure

Newspaper Sample

The author met with the Publisher, representing herself as an instructor at the University of Florida who was working on a doctoral dissertation in organizational behavior. At that meeting, the researcher presented a brief summary of the proposed research and a copy of the questionnaire that would be administered. She explained that the study would examine the ways employees sought information about their performance when they felt they wanted or needed more information. The Publisher agreed to allow employees to complete the survey on company time. He expressed concern about the feasibility of obtaining data from the sales and editorial staff, due to their varied and hectic schedules.

The author and Publisher agreed that participation in the survey would be voluntary, and individual responses would be confidential. The researcher promised feedback to the Publisher, supervisors, and employees, and made it clear that the data would be in summary form.

The circulation, preproduction, and production employees completed the survey during the work day. Participant's supervisors scheduled groups of three to ten employees to complete the survey during working hours. At the beginning of each data collection session, the author introduced herself, explained what the study was about, and

noted that participation was voluntary, individual responses were confidential, and all feedback to participating organizations and individuals would contain only summarized results. All who were scheduled completed the survey.

Because of schedule conflicts and pressure to meet press time deadlines, other departments could not schedule on site administration of the survey. Surveys were distributed to the billing, sales, editorial, and administrative staff and were collected several days later. The researcher met with each department supervisor, explained the research project, and discussed the voluntary nature of participation, confidentiality, and summary feedback. Each supervisor was instructed to present these points to his or her subordinates before distributing the questionnaires. Eighty percent of the billing staff completed and returned the surveys. However, only ten percent of the sales and editorial staff completed and returned the surveys. The data were collected over a two week period.

Department Store Sample

The researcher met with the Vice President for Personnel at the company's headquarters. The author presented herself as an instructor at the University of Florida who was doing research for a doctoral dissertation in organizational behavior. She described the research as a study of how people get more information about their

performance if they felt they needed more. The Vice President agreed to arrange access to one of the branch stores and to authorize the store manager to allow employees to complete the questionnaire on company time. At that time the Vice President suggested that housekeeping and stock personnel should not be included, because most were uneducated and might have considerable difficulty completing the questionnaire. The researcher and Vice President agreed that participation in the study should be voluntary and that all responses should be confidential. The researcher promised feedback to the Vice President, store manager, and employees after the research project was completed. All feedback would be in summary form; no individual responses would be provided.

Subsequently, the author contacted the store manager of the branch store, which the Vice President had arranged to participate in the study. The store manager agreed to schedule his employees to allow for all who were interested to participate in the study. Data would be collected on two days, beginning at 11:00 AM on a Friday and ending at store closing on Saturday. The researcher explained the voluntary and confidential nature of the study and that only summary results would be provided.

The researcher was assisted by a colleague who is familiar with survey research in organizational settings. He was briefed on the study. Questionnaires were

distributed in the store meeting room. Employees came to the meeting room individually, were told the purpose and nature of the study, and were directed to complete the questionnaire in the meeting room and turn them in to the researcher or her assistant.

Furniture Company Sample

In a formal written proposal to the President of the company, the author explained that the research was a study of the experiences and feeling people have when they seek feedback about their job performance and was part of the researcher's doctoral dissertation in organizational behavior. The President agreed to arrange for his employees to participate in the research during their regularly scheduled working hours. Prior to administration of the questionnaire, the researcher and the Personnel Manager met, discussed, and agreed that participation would be voluntary, that all individual responses would be voluntary, and that feedback to the organization and individuals would be in summary form only.

The researcher administered the questionnaire in groups of five to fifteen employees. She explained the purpose of the research, the voluntary and confidential nature of the research, and that all feedback would be in summary form. Each employee turned in the survey when completed and returned to work.

University Alpha

The author contacted a colleague who was an assistant professor at the University of Alabama at Birmingham and arranged for students in his classes to complete the questionnaire. Since he had assisted the researcher with data collection at the department store and was familiar with the nature of the study and the administration of the questionnaire, he agreed to administer the questionnaire.

He explained that a colleague at the University of Florida was conducting a survey to study the experiences and feelings people have when they receive information about their job performance and what they do to get additional information if they want it. In addition, he explained that participation was voluntary and that all individual responses would be kept confidential. Students completed the questionnaire during class time and received class participation credit.

University Beta

The author asked students in her Organizational Behavior class to participate in the research project. She explained that the purpose of the research was to study how people get information about their job performance. Also, she explained the participation was voluntary and all individual responses were confidential. Students completed the survey in class and received class participation credit.

Instruments and Measures

The survey used in this study, with instructions and a cover letter explaining the nature of the research appears in Appendix 1. The variables used are discussed in more detail below.

Need for Approval

The need for approval was measured by the 33-item Marlowe-Crown Social Desirability Scale (Crowne & Marlowe, 1960); the scale is presented in Appendix 2. Participants respond true (T) or false (F) to each item. This scale has been used extensively in research and has demonstrated adequate reliability (KR-20 around .88) and validity (Millham & Jacobson, 1979). Although originally developed as a measure of social desirability response bias, the scale is more accurately interpreted as a measure of a stable need with important behavioral correlates (Crowne & Marlowe, 1964; Millham & Jacobson, 1978; Strickland, 1979).

Need for Achievement

The need for achievement was measured by 28-item, five-point Likert Achievement Motive Scale (Hermans, 1970); the scale is presented in Appendix 3. The scale measures the following dimensions of the need for achievement construct: moderate aspiration level, preference for moderate level of risk, striving for upward mobility, persistence in task completion, desire to complete interrupted tasks, dynamic time perception, future-oriented time perspective, partner

choice based on competence, seeking recognition through excellence, and strong desire to perform well. The scale demonstrates adequate reliability (coefficient alpha .82) and validity (Hermans, 1970).

Feedback Seeking Behavior

Five subscales make up the Feedback Seeking Behavior Scale and are comprised of newly developed items. These items are designed to identify the strategies that individuals use when they seek information about their performance, the types of feedback information that they seek, the sources from which feedback is sought, the functions that feedback serves for individuals, and the costs that are incurred when feedback is sought. The method used to develop the items will be discussed first, followed by a discussion of the feedback seeking behavior subscales.

Students enrolled in Organizational Behavior and Principles of Management classes at the University of Florida responded to open-ended questions. The questions were designed to assess the types of performance information sought, the strategies used to obtain performance information, the sources of information, the functions that performance feedback serves, and the costs of seeking feedback. The items used appear in Appendix 4. Only the responses from students who were working at least part-time

were used to generate the feedback seeking items used in this research.

The responses to each question were recorded, and separated into categories consistent with feedback seeking theory. Then, the most frequent responses were chosen for the research questionnaire. Forty- eight items were retained and make up the Feedback Seeking Behavior Scale.

Respondents were asked to mark on a five-point Likert scale how much they agreed or disagreed with questions that asked for their feelings and opinions about performance information that they received from their supervisors. The anchors ranged from strongly disagree (1) to strongly agree (5).

Feedback Seeking Strategies

These items are designed to determine the strategies of monitoring and inquiry that individuals use to obtain performance feedback.

Monitoring strategies

Monitoring items assess whether individuals obtain performance information by reflective or comparative appraisal. Reflective appraisal items measure a feedback seeking strategy based on the individuals observation of the favorableness of others' behavior towards him or her.

6. I try to figure out how well I am doing by considering how my supervisor treats me.
12. Getting respect from my peers is a good indicator of how well I am doing on the job.

- 27. My supervisor's attitude toward me is a sign of how well I am doing my job.
- 31. I would not ask my supervisor for an evaluation of my performance because I assume that I am doing my job well unless he/she says something to me.

Comparative appraisal is measured by the following items:

- 4. Comparing my raises and promotions to those of my coworkers is one way that I know how I am doing on the job.
- 14. A good way to tell how well I am doing on my job is to compare my performance to those who are really considered successful here.
- 23. If I am unsure how well I am doing my job, I try to compare my performance to that of others.

Inquiry strategies

The inquiry subscales determine whether individuals obtain information by either direct or indirect questioning. The direct inquiry strategy items are as follows:

- 16. When I want more information about my job performance, I ask my supervisor.
- 18. If I did not understand how my performance evaluation was determined, I would ask my supervisor for an explanation.
- 26. I am not hesitant about asking my supervisor or co-workers for advise on improving my performance.
- 28. If I am uncertain about how I am doing on my job, I would ask my supervisor.

Indirect inquiry is assessed by

- 10. When asking for evaluation information from my supervisor I think it is best to ask indirect rather than direct questions.

21. When I want more information about my job performance, I try to hint to my supervisor that I want an evaluation.
33. If I wanted to know how I well I was doing on my job, I would talk to my co-workers about my performance and hope my supervisor over-hears the conversation.

Types of Feedback Sought

These items were designed to assess the two basic types of information that people seek, evaluative and cognitive.

Evaluative feedback

Evaluative feedback items include

15. It is important to know how my job performance compares to that of my co-workers.
17. I prefer to know how I am doing overall rather than to know specific information about my performance.
30. If I was given a choice between getting an overall rating or information on how to improve my job performance I would prefer the overall rating.

Cognitive feedback

Cognitive information is assessed by the following items:

5. In a performance review, I am more concerned about finding out specific ways of improving my performance rather than just finding out my supervisor's overall evaluation.
8. Specific information about my job performance is more important to me than an overall rating.
13. I prefer to be told how I can improve my performance rather than to be told how well I am doing on the job in general.

Sources of Feedback Sought

The items in this scale measure an individual's preference for information from different sources. The research examined two sources--legitimate and expert.

Legitimate source

Legitimate source items are

- 7. I do not think a co-worker's opinion of my performance is important because he/she is on the same level as I am.
- 11. No matter how much experience a co-worker has, I do not think his/her opinion about my performance is important.
- 19. My supervisor's evaluation of my performance is important because he/she controls my future in the company.
- 32. My supervisor's comments on my performance would be more important to me than my co-workers' comments even if my performance were more readily visible to my co-workers.
- 36. Even if I trust my co-worker's more, I think my supervisor's opinion of how I am doing my job is more important.
- 41. I would value my supervisor's opinion of my job performance because he/she is the boss, even if he/she were not the best qualified to judge my performance.

Expert source

Expert source is measured with the following:

- 22. To do the best job, it is useful to ask people who know the job best even if they are co-workers.
- 25. I would rather have a respected co-worker comment on my performance than my supervisor.
- 29. If I thought my co-workers were more knowledgeable about my job than my boss, I would take my boss's evaluation less seriously.

- 45. If my co-workers are more objective than my supervisor, I would rather have their opinion about my performance than my supervisor's opinion.
- 48. If I need more information about my job performance, the best person to ask would be someone who knows the job best, even if that person is a co-worker.

Functions of Feedback

Feedback serves several purposes for the individual including approval from others, progress toward meeting one's own goals, and progress toward meeting other's goals. The two functions examined in this study are approval and goal.

Approval function

The approval function of feedback is assessed with the following items:

- 3. Knowing that I am doing a good job is important to me because I want others to like me.
- 34. My supervisor's opinion of my performance is important, because I don't want him/her to think badly of me.
- 43. My supervisor's evaluation of my performance is important, because I want him/her to think well of me.

Goal function

The goal function of feedback is assessed by three items.

- 35. I care about knowing how well I am doing my job because then I know if I am meeting my own expectations.
- 37. My own performance expectations are more important to me than my supervisor's.

47. Knowing how well I am doing my job is important to me because it tells me how well I am meeting my supervisor's expectations.

Costs of Seeking Feedback

The costs of seeking feedback was measured with subscales designed to identify two costs--face saving and ego defensive.

Face saving

Face saving cost items are

2. I would not ask my supervisor about my performance because it might call attention to my performance.
44. I would not ask my supervisor about my job performance because he/she might think I am too pushy or aggressive.
46. I would not ask my supervisor about my performance because someone might think I was brown-nosing.

Ego defensive

Ego defensive cost is measured by

39. I would rather hear positive comments about my performance than negative ones even if the negative ones would help me improve my performance.
38. If I need more information about how well I am doing my job I would not ask my supervisor because he/she might be critical.
42. I would not hesitate to ask my supervisor about my job performance even if I might hear something negative about myself or my performance.
40. I would find it intimidating to ask my supervisor about my job performance.

Satisfaction with Feedback

The items in the satisfaction with feedback subscale measure respondents' satisfaction with the current amount, type, and frequency of both formal and informal feedback that they receive from their supervisors.

1. I would like it if my supervisor would tell me more often how I am doing on my job.
9. I am satisfied with the amount of information my supervisor gives me about my performance.
20. I would like more information about what's wrong with my performance than I am currently getting.
24. I would like to know more about how my performance compares to my coworkers'.

Performance

Individuals were asked to rate on a five-point scale from Unacceptable (1) to Outstanding (5) their job performance based on their last formal performance evaluation.

Formal Feedback

Respondents were asked for information on the formal evaluation process where they worked. They were asked to indicate how often they receive a formal performance evaluation (responses ranged from there is no performance evaluation system where I work (1) to more than four times a year (7)). In addition, they were asked to indicate whether they received (yes) or did not receive (no) the following types of information in their formal performance evaluation: overall rating, specific examples of job performance, what

they did right or wrong, suggestions on how to improve performance, and information about how they compare with other employees.

Informal Feedback

Respondents were also asked to indicate on a five-point scale how often they received certain kinds of performance information outside of the formal evaluation process. Frequencies ranged from Never (1) to Several times a week (5). The kinds of information were: how they are doing on the job, suggestions on how performance can be improved, how their performance compared to that of others, praise for the job they are doing, criticism for the job they are doing.

Having described the sample, procedure, and survey used to collect data for this research, we turn now to a discussion of the descriptive statistics, factor analyses, and correlations obtained.

Preliminary Analysis

Descriptive statistics for each major variable were computed. In addition test for differences in means of each major variable on demographic and organizational variables were conducted.

Descriptive Statistics

The means, standard deviations, coefficient alpha reliabilities, Kolmogorov-Smirnov D-statistic, and the index of Skewness for each major variable were computed and are

presented in Table 7. The differences in sample sizes across the variables represent missing values. The means and standard deviations of the Marlowe-Crowne Social Desirability Scale and the Achievement Motive Scale are similar to those generally reported for those scales (Crowne & Marlowe, 1964; Hermans, 1970). Since the feedback seeking behavior scales are new, there are no figures with which to compare them.

The reliability of the Marlowe-Crowne Social Desirability Scale and the Achievement Motive Scale (.88 and .77, respectively) are consistent with reliabilities previously reported for those scales (Crowne & Marlowe, 1964; Hermans, 1970). The reliabilities for the feedback subscales range from .73 to .43 with all but three below the .70 criterion recommended by Nunnally (1978).

Columns 5 and 6 of Table 7 show the results of tests for normality for the scales used in this research. The statistical analyses used in this study are based on the assumption that data come from a normal distribution. The Kolmogorov-Smirnov D-statistic is used to assess this assumption. Values of this statistic range from zero to one; smaller values indicate that the data are more likely to come from a normal distribution (Afifi & Clark, 1984). Only Need for Achievement ($p < .05$) is normally distributed. Need for Approval, comparative appraisal, expert source,

Table 7
Means, Standard Deviations, and Distribution
Statistics

| Variable | n | Mean | Std. Dev. | Coef. alpha | D: Norm. | Skewness |
|--------------------------|-----|--------|--------------|----------------|-------------|----------|
| Need for Approval | 373 | 17.55 | 7.08 | .88 | 0.088* | 0.291 |
| Need for Achievement | 360 | 102.76 | 9.77 | .77 | 0.047 | -0.547 |
| Comparative Appraisal | 361 | 9.15 | 2.61 | .53 | 0.107** | -0.053 |
| Reflective Appraisal | 361 | 10.11 | 2.48 | .57 | 0.146** | -0.630 |
| Direct Inquiry | 361 | 15.53 | 2.92 | .73 | 0.184** | -0.963 |
| Indirect Inquiry | 361 | 6.40 | 2.02 | .43 | 0.187** | 0.838 |
| Cognitive Feedback | 361 | 10.61 | 2.25 | .52 | 0.132** | -0.471 |
| Evaluative Feedback | 356 | 8.73 | 2.05 | .59 | 0.195** | 0.266 |
| Expert Source | 359 | 11.65 | 3.17 | .58 | 0.087* | -0.120 |
| Legitimate Source | 361 | 8.47 | 2.31 | .67 | 0.138** | 0.326 |
| Approval Function | 361 | 15.23 | 3.41 | .62 | 0.100** | 0.169 |
| Goal Function | 372 | 7.39 | 1.68 | .67 | 0.195** | -0.603 |
| Ego Defensive Cost | 361 | 9.12 | 2.07 | .51 | 0.161** | -0.483 |
| Face Saving Cost | 373 | 6.04 | 2.32 | .70 | 0.202** | 0.955 |
| Satisfaction Feedback | 358 | 10.79 | 2.76 | .82 | 0.128** | -0.022 |

* $p < .05$ ** $p < .01$

and approval function are closer to a normal distribution than the others.

The index of skewness showed that reflective appraisal and direct inquiry were relatively more negatively skewed, while indirect inquiry, legitimate source face saving costs were more positively skewed than others.

Since both the Kolmogorov-Smirnov D-statistic and the index of skewness tend to be overly sensitive to minor deviations from normality, histograms and normal probability plots may be more useful in assessing normality (Afifi & Clark, 1984). The histograms and normal probability plots show that the distribution of values is roughly normal. The deviations from normality indicated by the Kolmogorov-Smirnov D-statistic and the index of skewness probably do not represent severe departures from normality. Moreover, because the general linear model used for analysis in this study is fairly robust against all except severe violations of normality (Afifi & Clark, 1984), the deviations from normality observed for these data are not likely to affect the validity of the results.

Demographic and Organizational Analysis

The demographic data on age, gender, ethnic background, marital status, and education were obtained from respondents. Respondents were also asked to indicate the type of work they performed, whether they worked full- or part-time, if they supervised other employees, tenure in

their current job, tenure in the organization, and tenure under their current supervisor. To assess whether there were any significant differences among the variables on the demographic and organizational variables, several one-way analyses of variance (ANOVAs) were conducted on the categorical variables (gender, ethnic background, marital status, and education). If the F-statistic (t-statistic for gender) was found to be significant, Scheffe multiple comparison methods were used to determine which of the means were significantly different.

Significant gender differences were found on Need for Approval, Need for Achievement, monitoring strategy, evaluative feedback, and cognitive feedback. Table 8 contains the result of the Anova analyses for the pairwise comparisons.

Specifically, women scored higher on the MSCD scale measure of Need for Approval and on Herman's Need for Achievement scale. Women report that they use monitoring strategies less often than men. However, there was no difference between the use of inquiry strategies for men and women. Women also report that they seek less evaluative and more cognitive feedback than men.

Individuals who have attended or completed high school have higher Need for Approval and lower Need for Achievement scores than those who have at least attended college. Individuals who have attended or completed high school

Table 8

Gender differences

| Variable | MSE | F-statistic | df |
|-------------------------|-------|-------------|-----|
| Need for Approval | 0.469 | 3.885 | 215 |
| Need for Achievement | 0.784 | 3.885 | 214 |
| Monitoring | 0.889 | 3.885 | 215 |
| Evaluative Feedback | 0.649 | 3.885 | 214 |
| Cognitive Feedback | 0.996 | 3.885 | 215 |

report that they seek evaluative information more than individuals who have at least completed graduate or professional school.

There are only three significant correlations between the continuous demographic variables (age, job tenure, organizational tenure, and supervisor tenure) and the variables related to the hypotheses. Older individual tend to score higher on the MCSD scale ($r=.17$, $p<.01$) and report using less comparative appraisal than their younger counterparts ($r=-.11$, $p<.05$). Supervisor tenure is negatively correlated to Need for Approval ($r=-.13$, $p<.05$).

These results suggest that demographic and organizational variables should not significantly confound testing of the hypotheses of the study.

Factor Analysis

Maximum likelihood (ML) factor analyses were conducted on each of the scales used to measure the variables for Hypotheses 1 through 15. This method of factor analysis allows the researcher to perform a confirmatory factor analysis by specifying the number of factors to be rotated prior to factor extraction (Afifi & Clark, 1984). The procedure tests the hypothesis that the number of factors retained is sufficient to explain the correlations among the observed variables. Table 9 contains the number of factors that were specified, eigen values, Chi-square statistic for

Table 9
Results of Maximum Likelihood Factor Analyses

| Scale | #fact | E-value | Chi-sql | Chi-sq2 | Prob>Chi |
|--------------------------|-------|---------|---------|---------|----------|
| Need for Approval | 1 | 9.75 | 2088.21 | 774.45 | + |
| Need for Achievement | 9 | 14.33# | 2182.76 | 184.40 | * |
| Comparative Appraisal | 1 | 0.93 | 81.45 | 0.00 | * |
| Reflective Appraisal | 1 | 0.99 | 104.35 | 0.00 | * |
| Direct Inquiry | 1 | 1.22 | 110.73 | 0.00 | * |
| Indirect Inquiry | 1 | 0.56 | 47.16 | 0.00 | * |
| Evaluative Feedback | 1 | 0.72 | 67.60 | 0.00 | * |
| Cognitive Feedback | 1 | 0.76 | 74.29 | 0.00 | * |
| Legitimate Source | 1 | 1.02 | 106.03 | 0.00 | * |
| Expert Source | 1 | 0.95 | 100.18 | 0.00 | * |

+ More factors are needed to explain the data.

* Number of factors specified adequately fit the data.

Total of the eigen values for the first nine principal components.

the hypothesis that there are no common factors, Chi-square statistic for the hypothesis that the number of factors specified is sufficient, and $\text{Prob} > \chi^2$ for each of the scales. The results for each scale are discussed in turn.

Need for Approval

The Need for Approval as measured by the MCSD scale has been interpreted to be a unidimensional construct. Results of this factor analysis suggests that more than one factor is needed to explain the data. Additional factor analyses were conducted, in order to identify the number of factors that produced a non-significant Chi-square statistic.

A non-significant Chi-square ($p = .06$) was obtained with an eight factor model. However, this model produced a factor structure with six factors on which no items loaded .40 or greater. While the Chi-square supported this model as the best fit of the data, the first four principal components (with eigen values of 9.75, 1.64, 1.05, and 0.97, accounting for 94 percent of the variance in the data) indicate that a three or four factor solution may be more appropriate.

The ML procedure was repeated with a both a three and four factor solutions. The Chi-square statistic was still significant for both models, indicating that more than three factors are needed to represent the scale. However, when the pattern factor loadings for both models are examined,

the three factor solution appears to be more appropriate. This factor solution is presented in Appendix 5.

Need for Achievement

Hermans constructed the Need for Achievement scale to represent the nine dimensions of the achievement motive. The ML factor analyses conducted with nine factors produced a non-significant Chi-square statistic ($p=.1097$), indicating that nine factors adequately explain the data. However, the model appeared to be severely overrotated; four of the factors had no items with factor loadings of .40 or greater.

The eigen values of the first four principal components (7.59, 2.68, 1.40, and 1.10, respectively) indicated that four rather than nine factors underlie the scale. Additional ML factor analyses were conducted for other factor models. The results of the four factor solution are contained in Appendix 6. These results indicate that although the Chi-square obtained for the four factor solution was significant, the pattern of factor loadings was better than any other model.

These factor analyses results indicate that the both scales may have psychometric problems that could potentially confound testing of the hypotheses of this study. Both scales are multidimensional, and their factor structures are weak; many items have loadings less than .40 and some factors have only one or two items which load on it.

Feedback Seeking Strategy

The ML factor analyses conducted for the feedback seeking scales, supported a one factor solution. Although two of the factor loadings were below the generally accepted .40 criterion, solutions with more than one factor did not improve the fit of the data.

The one factor solution for the three item comparative appraisal scale yield factor loadings of .41, .59, and .60. Factor loadings of .37, .65, and .66 were obtained for the three items comprising the referent appraisal scale.

For the three item direct inquiry scale, factor loadings were .42, .55, and .63. The factor loadings on the three items of the indirect feedback scale were .35, .46, and .59.

Type of Feedback Sought

The one factor solutions specified for each of the two types of information sought scales were supported. Factor loadings on the two evaluative feedback items were both .65. The three item cognitive feedback scale yielded factor loadings on one of the items of .37. The other two factors loaded .47 and .73 on the other two items. A two factor solution for the cognitive feedback scale failed to improve the fit of the data.

Source of Feedback Sought

The one factor solution for two source of feedback sought scales were also supported. The factor loaded .71 on both items comprising the legitimate source scale. For the

expert source scale, the one factor solution produced factor loadings of .47, .56, and .67 for the three items.

These analyses suggest that the factor structure of the feedback seeking behavior items should not significantly affect tests of the major hypotheses of this study.

Correlations

Table 10 contains the Pearson product moment correlations among the variables. First, the correlations among the major variables are presented. Next, the correlations which provide evidence of validity and potential problems with hypothesis testing are discussed. Finally, correlations between feedback seeking behavior and the types and amount of feedback individuals currently receive are discussed.

Individual Needs and Feedback Seeking Behavior

In this section the correlations among the major variables are discussed. This discussion is for descriptive purposes only; the correlations are not used to test the hypotheses.

Need for Approval is negatively correlated with comparative appraisal ($r = -.20$, $p < .0001$) and indirect inquiry ($r = -.14$, $p < .01$) and positively correlated with direct inquiry ($r = .18$, $p < .001$). The correlation with referent appraisal is not significant. Need for Achievement is positively related to direct inquiry ($r = .23$, $p < .0001$);

Table 10

Correlation Coefficients

| | NAPP | NACH | COM | REF | MON | DIR |
|------|----------|----------|----------|----------|----------|----------|
| NACH | .40**** | | | | | |
| COM | -.20**** | -.04ns | | | | |
| REF | -.07ns | .09ns | .35**** | | | |
| MON | -.17*** | .03ns | .83**** | .81**** | | |
| DIR | .18*** | .23**** | .01ns | .27**** | .16*** | |
| IND | -.14** | -.05ns | .10* | .05ns | .09ns | -.36**** |
| INQ | .08ns | .20**** | .08ns | .31**** | .23**** | .76**** |
| EVL | .05ns | -.16** | -.02ns | -.03ns | -.03ns | -.13* |
| COG | .12* | .20**** | .00ns | .20*** | .12* | .23**** |
| LEG | .15** | .00ns | -.15** | -.08ns | -.14** | -.27**** |
| EXP | -.18*** | -.13** | .19*** | .06ns | .15** | -.24**** |
| APP | -.05ns | -.17*** | .18*** | .22**** | .20**** | -.35**** |
| GOA | .07ns | .14** | .10ns | .05ns | .07ns | .31**** |
| FAC | .04ns | -.20**** | .01ns | -.06ns | .03ns | -.53**** |
| EGD | -.05ns | -.08ns | .24**** | .26**** | .25**** | -.19*** |
| SAT | .02ns | .04ns | -.21**** | -.20**** | -.21**** | -.03ns |
| PEV | .02ns | .13* | .09ns | .05ns | .06ns | .11ns |
| FRT | .03ns | -.03ns | -.05ns | -.08ns | -.08ns | -.09ns |
| FXM | .00ns | .00ns | -.08ns | -.01ns | -.05ns | -.12* |
| FRW | -.02ns | .02ns | -.06ns | -.04ns | -.06ns | -.12* |
| FIM | .06ns | .01ns | -.02ns | -.08ns | -.06ns | -.23**** |
| FCO | -.08ns | .00ns | -.12* | -.03ns | -.09ns | -.01ns |
| IRT | .00ns | .05ns | .06ns | .07ns | .07ns | .13** |
| IIM | .02ns | -.01ns | .13* | .06ns | .11* | .14** |
| ICO | .00ns | .01ns | .10* | .10* | .12* | .00ns |
| IPR | -.01ns | .05ns | .04ns | .02ns | .03ns | .12* |
| ICR | -.11* | -.03ns | .03ns | .18*** | .13* | .00ns |

ns - not significant

* - $p < .05$ ** - $p < .01$ *** - $p < .001$ **** - $p < .0001$

NAPP - Need for Approval

NACH - Need for Achievement

COM - Comparative appraisal

REF - Referent appraisal

MON - Monitoring (COM+REF)

DIR - Direct inquiry

IND - Indirect inquiry

INQ - Inquiry (DIR+IND)

EVL - Evaluative feedback

COG - Cognitive feedback

LEG - Legitimate source

EXP - Expert source

APP - Approval (function)

GOA - Goal attainment (funct.)

FAC - Face saving (cost)

EDG - Ego defensive (cost)

SAT - Feedback satisfaction

PEV - Performance rating

FRT - Formal overall rating

FXM - Formal examples

FRW - Formal right and wrong

FIM - Formal how to improve

FCO - Formal comparison

IRT - Informal rating

IIM - Informal how improve

ICO - Informal comparison

IPR - Informal praise

ICR - Informal criticism

Table 10 (continued)

| | IND | INQ | EVL | COG | LEG | EXP |
|------|----------|----------|----------|---------|---------|---------|
| NACH | | | | | | |
| COM | | | | | | |
| REF | | | | | | |
| MON | | | | | | |
| DIR | | | | | | |
| IND | | | | | | |
| INQ | .33**** | | | | | |
| EVL | .23**** | .04ns | | | | |
| COG | .23**** | .11* | -.38**** | | | |
| LEG | .21**** | -.12* | .29**** | -.15** | | |
| EXP | .18*** | -.12* | -.03ns | .01ns | -.17*** | |
| APP | .41**** | -.06 ns | .24**** | -.05ns | .23**** | .25**** |
| GOA | -.23**** | .14** | -.09ns | .21**** | -.05ns | .06ns |
| FAC | .44**** | -.23**** | .23**** | -.18*** | .29**** | .24**** |
| EGD | .27**** | -.01ns | .19*** | .04ns | .11* | .24**** |
| SAT | -.09ns | -.09ns | .02ns | -.09ns | .05ns | -.12* |
| PEV | .08ns | .06ns | -.04ns | .02ns | -.17** | .01ns |
| FRT | -.06ns | -.13* | .04ns | .03ns | .02ns | .12* |
| FXM | -.02ns | -.14* | -.07ns | .03ns | .10 | .08ns |
| FRW | -.08ns | -.17** | -.02ns | .13* | -.01ns | .17** |
| FIM | .04ns | -.20*** | -.03ns | .10ns | .02ns | .15* |
| FCO | .00ns | -.01ns | -.10ns | -.02ns | .01ns | -.06ns |
| IRT | .00ns | .14** | -.01ns | -.08ns | -.03ns | -.03ns |
| IIM | .02ns | .17*** | .02ns | -.05ns | -.01ns | -.04ns |
| ICO | .14** | .09ns | .09ns | .01ns | .03ns | .05ns |
| IPR | -.03ns | .11* | .00ns | -.07ns | -.01ns | -.01ns |
| ICR | .07ns | .06ns | .02ns | .07ns | -.06ns | .01ns |

Table 10 (continued)

| | APP | GOA | FAC | EGD | SAT | PEV |
|------|----------|----------|---------|---------|--------|--------|
| NACH | | | | | | |
| COM | | | | | | |
| REF | | | | | | |
| MON | | | | | | |
| DIR | | | | | | |
| IND | | | | | | |
| INQ | | | | | | |
| EVL | | | | | | |
| COG | | | | | | |
| LEG | | | | | | |
| EXP | | | | | | |
| APP | | | | | | |
| GOA | -.22**** | | | | | |
| FAC | .81**** | -.30**** | | | | |
| EGD | .75**** | -.11* | .34**** | | | |
| SAT | -.13** | .09ns | -.01ns | -.18*** | | |
| PEV | .07ns | .02ns | .05ns | -.01ns | .03ns | |
| FRT | -.01ns | -.01ns | .00ns | .03ns | .02ns | -.16** |
| FXM | .09ns | .07ns | -.02ns | .04ns | .10ns | -.17** |
| FRW | .03ns | -.02ns | -.02ns | .01ns | .02ns | -.10ns |
| FIM | .02ns | .07ns | .05ns | .01ns | -.05ns | -.10ns |
| FCO | .04ns | -.01ns | .03ns | .00ns | .06ns | .00ns |
| IRT | .01ns | .04ns | -.01ns | .07ns | .00ns | .20*** |
| IIM | -.02ns | .06ns | .00ns | .01ns | -.04ns | .11ns |
| ICO | .10ns | -.01ns | .09ns | -.01ns | -.02ns | .09ns |
| IPR | .05ns | .10ns | -.05ns | .00ns | .03ns | .16** |
| ICR | .00ns | -.08ns | -.06ns | .04ns | .08ns | -.10ns |

Table 10 (continued)

| | FRT | FXM | FRW | FIM | FCO | IRT |
|------|---------|----------|----------|----------|----------|---------|
| NACH | | | | | | |
| COM | | | | | | |
| REF | | | | | | |
| MON | | | | | | |
| DIR | | | | | | |
| IND | | | | | | |
| INQ | | | | | | |
| EVL | | | | | | |
| COG | | | | | | |
| LEG | | | | | | |
| EXP | | | | | | |
| APP | | | | | | |
| GOA | | | | | | |
| FAC | | | | | | |
| EGD | | | | | | |
| SAT | | | | | | |
| PEV | | | | | | |
| FRT | | | | | | |
| FXM | .29**** | | | | | |
| FRW | .27**** | .48**** | | | | |
| FIM | .24**** | .31**** | .49**** | | | |
| FCO | -.03ns | .13* | .03ns | .08ns | | |
| IRT | -.18** | -.26**** | -.28**** | -.28**** | -.08ns | |
| IIM | -.11ns | -.27**** | -.33**** | -.40**** | -.16** | .52**** |
| ICO | .00ns | -.11ns | -.12* | -.07ns | -.26**** | .32**** |
| IPR | -.09ns | -.25**** | -.24**** | -.28**** | -.04ns | .72**** |
| ICR | .01ns | .00ns | -.16** | -.08ns | -.05ns | .13* |

Table 10 (continued)

| | IIM | ICO | IPR |
|------|---------|---------|------|
| NACH | | | |
| COM | | | |
| REF | | | |
| MON | | | |
| DIR | | | |
| IND | | | |
| INQ | | | |
| EVL | | | |
| COG | | | |
| LEG | | | |
| EXP | | | |
| APP | | | |
| GOA | | | |
| FAC | | | |
| EGD | | | |
| SAT | | | |
| PEV | | | |
| FRT | | | |
| FXM | | | |
| FRW | | | |
| FIM | | | |
| FCO | | | |
| IRT | | | |
| IIM | | | |
| ICO | .31**** | | |
| IPR | .40**** | .26**** | |
| ICR | .32**** | .34**** | .12* |

correlations with the other feedback seeking strategies are not significant.

Both Need for Approval and Need for Achievement are positively correlated with seeking cognitive feedback ($r=.12$, $p<.05$ and $r=.20$, $p<.0001$, respectively). While there is a significant negative correlation between Need for Achievement and seeking evaluative feedback ($r=-.16$, $p<.01$), the correlation between Need for Approval and seeking evaluative feedback is not significant.

The correlations between seeking feedback from an expert source and both Need for Approval and Need for Achievement are negative ($r=-.18$, $p<.001$ and $r=-.13$, $p<.01$). Need for Approval is positively related to seeking feedback from a legitimate source ($r=.15$, $p<.01$); the correlation between Need for Achievement and seeking feedback from a legitimate source is not significant.

Performance evaluations are negatively related to seeking feedback from legitimate sources ($r=-.17$, $p<.001$), but there is no relationship between performance evaluations and seeking feedback from expert sources. None of the strategies and types of feedback are related to performance evaluations.

Validity and Potential Confounds

The correlations provide some evidence regarding validity: variables that are independent should be uncorrelated, subscales which measure related behavior or

constructs should be positively correlated, and subscales which measure opposite behavior or constructs should be negatively correlated (Anastasi, 1986).

Need for Approval is significantly correlated with Need for Achievement ($r=.40$, $p<.0001$). Although they are theoretically independent, the correlation between these two needs indicate problems with construct validity. This could significantly confound tests of the hypotheses.

The correlations between Need for Approval and the functions of feedback and costs of seeking feedback are not significant. There are positive correlations among the functions and costs that characterize an approval dependent person (i.e., approval function, face saving cost and ego defensive cost) and a negative correlation of these characteristics and the goal function of feedback (see columns 1 through 4 on page 72). Moreover, the correlations between these characteristics and feedback seeking behavior are significant and in the directions consistent with the hypotheses (columns 3, 4, and 6 on page 70 and columns 1, and 3 through 6 on page 71). This pattern of correlations indicates potential problems in testing hypotheses related to Need for Approval and in interpreting the results obtained.

Overall, the correlations between Need for Achievement, functions of feedback, and costs of seeking feedback are consistent with previous theory and the relationships

hypothesized in this study ($r = -.17$, $p < .001$ for approval function; $r = .14$, $p = .01$ for goal function; $r = -.20$, $p < .0001$ for face saving cost; and non-significant for ego defensive cost). These correlations suggest that there should be no significant confounding of tests of the hypotheses related to Need for Achievement.

Comparative appraisal and referent appraisal are positively correlated ($r = .35$, $p < .0001$), referent appraisal negatively correlated with direct inquiry ($r = -.27$, $p < .0001$), comparative appraisal is positively correlated with indirect inquiry ($r = .10$, $p < .05$), and direct and indirect inquiry are negatively related ($r = -.36$, $p < .0001$). The monitoring strategies seem to be measuring similar feedback seeking strategies. However, the negative correlation between direct and indirect inquiry indicate that these subscales may be measuring different types of strategies.

Seeking evaluative feedback is negatively related to seeking cognitive feedback ($r = -.38$, $p < .0001$). Seeking feedback from a legitimate source is negatively correlated with seeking feedback from an expert source ($r = -.17$, $p < .001$). These relationships indicate that the scales are probably measuring different types of feedback and different sources of feedback.

There is only one significant correlation between individual needs and the current amount of feedback. Individuals high in Need for Approval tend to report

receiving more informal criticism from their supervisors ($r=.11$, $p,.05$). The correlations between the goals and functions of feedback and reports of the current amount of formal and informal feedback are not significant. In addition, there are no significant correlations between goals and functions of feedback and performance evaluations. Need for Approval is not related to performance evaluations. However, Need for Achievement is significantly related to performance evaluation ($r=.13$, $p<.05$). Overall, this pattern of correlations suggests that information about they type and amount of current feedback and performance are probably not biased.

Current Feedback and Feedback Seeking Behavior

The correlations between both formal and informal feedback that respondents currently receive and feedback seeking behavior are predominantly negative (columns 3, 4 and 6 on page 70 and columns 1 and 3 through 6 on page 71). There are negative correlations between comparative appraisal and receiving criticism in formal evaluations ($r=-.12$, $p<.05$) and between direct inquiry and receiving specific information about performance (see column 6 on page 70). This indicates that greater amounts of formal feedback are associated with the reductions in feedback seeking behavior.

Informal feedback, however, tends to be associated with increases in the amount of feedback seeking behavior. Comparative appraisal is positively related to suggestions

for improvement ($r=.13$, $p<.05$) and comparisons with others ($r=.10$, $p<.05$); referent appraisal is correlated positively with comparison with others ($r=.10$, $p<.05$) and criticism ($r=.18$, $p<.001$). Direct inquiry is positively related to informal ratings ($r=.13$, $p<.01$), suggestions for improvement ($r=.14$, $p<.01$) and praise ($r=.12$, $p<.05$). These correlations indicate that individuals who receive more informal feedback of various types tend to seek feedback more frequently.

There is only one significant correlation between current feedback and types of information sought. In that case, individuals who receive more formal information about what they have done right and wrong tend to seek more cognitive information ($r=.13$, $p<.05$).

The correlations between current formal feedback and sources of feedback sought indicate that ratings ($r=.15$, $p<.05$), information about what they have done right and wrong ($r=.17$, $p<.01$), and suggestions for improvement ($r=.15$, $p<.05$) are associated with seeking feedback from expert sources. There are no relationships either between current feedback (both formal and informal) and seeking feedback from legitimate sources or between current informal feedback and seeking feedback from legitimate sources.

These correlations indicate that the type of current feedback is not systematically nor significantly related to differences in feedback seeking strategy, the type of

feedback sought, or the source from which feedback is sought.

Satisfaction with current feedback is correlated with comparative and referent appraisal ($r = -.21$, $p < .0001$ and $r = -.20$, $p < .0001$) and with seeking feedback from an expert source ($r = -.12$, $p < .05$). However, feedback is not related to the characteristics of current feedback.

The results of a series of regression analyses used to test each of the fifteen hypotheses developed in Chapter 1 will be presented in the next chapter. A discussion of those results will be presented in Chapter 4.

CHAPTER 3 RESULTS

This chapter contains the results of the data analyses performed to test the hypotheses presented in Chapter 1. The statistical procedure used to test the hypotheses is described, each hypothesis is restated, and a brief statement is made about the support found for each hypothesis.

Statistical Procedure

Scores on all of the major variables in the study were standardized with a mean of 0 and a standard deviation of 1 so that all variables would be on the same metric.

There are two prototypical hypotheses. The first is exemplified by Hypothesis 1--Individuals who are high in Need for Approval are more likely to use monitoring than individuals who are high in Need for Achievement. Consider the regressions of monitoring on Need for Approval and of monitoring on Need for Achievement. Because all three variables are standardized, each regression line must pass through the (0,0) point. Consequently, there are just three possible patterns for the two regressions. In the first, the two regression lines are coincident and consequently the hypothesis is not supported. In the second, the lines

cross at the $(0,0)$ point and the slope for the regression of monitoring on Need for Approval is larger than the slope for the regression on Need for Achievement. Then the hypothesis is supported. If the slope for the regression of monitoring on Need for Approval is smaller than the slope for the regression on Need for Achievement, the hypothesis is not supported.

Because there are only three possible outcomes for the two regressions, the required test is of the null hypothesis that the slopes are equal against the alternative hypothesis that the slope of the regression of monitoring on Need for Approval exceeds that for monitoring on Need for Achievement. Moreover, since all of the variables are standardized, the slopes of the regression lines are, in fact, correlation coefficients. Consequently, what is needed is a test of the null hypothesis that monitoring is equally correlated with both needs versus the alternative hypothesis that monitoring is more highly correlated with Need for Approval.

Let Z_1 , Z_2 , and Z_3 denote Need for Approval, Need for Achievement, and monitoring, respectively. By simple algebra, it can be shown that

$$p(Z_1 - Z_2, Z_3) = p(Z_1, Z_3) - p(Z_2, Z_3).$$

Consequently, the comparison of correlations can be accomplished by testing the null hypothesis that monitoring is uncorrelated with the difference between Need for

Approval and Need for Achievement against the alternative hypothesis that the correlation is positive.

Operationally, in this dissertation the hypothesis was tested by conducting three regression analyses: a) the regression of monitoring on Need for Approval, b) the regression of monitoring on Need for Achievement, and c) the regression of the difference between Need for Approval and Need for Achievement on monitoring. Hypothesis 1 would be supported if the slope for the first regression is larger than the slope for the second, and the slope in the third regression is significant at the .10 level. Of course, the first two regressions are not actually required to conduct the hypothesis test. All that is required is to test the appropriate directional hypothesis for the third regression. However, the first two regressions provide useful descriptive information.

The second type of hypothesis can be illustrated by Hypothesis 2--Individuals who are high in Need for Approval are more likely to use monitoring strategies than inquiry strategies. Here the required regressions are a) Need for Approval on monitoring, b) Need for Approval on inquiry, and c) Need for Approval on the monitoring-inquiry difference. This hypothesis would be supported if the slope for the first regression is larger than the slope of the second, and the slope of the third is significant at the .10 level. All

that is required again is to test the appropriate directional hypothesis for the third regression.

Feedback Seeking Strategy

In order to provide a more meaningful and useful test of these four hypotheses, monitoring and inquiry were broken down into their two components (comparative and reflective appraisal and direct and indirect inquiry, respectively). The results of the regression analyses are presented in Tables 11 through 13.

Hypothesis 1 - Individuals who are high in Need for Approval are more likely to use monitoring strategies than individuals who are high in Need for Achievement.

The results of the first two regressions in Table 11 show that the negative correlation between Need for Approval and comparative appraisal is significant ($F=15.02$, $p<.0001$); the correlation of Need for Achievement and comparative appraisal is not significant ($F=0.50$). The third model tested shows that there is a significant difference in the correlations obtained from the first two regressions ($F=7.98$, $p<.01$), but the results are in the opposite direction from what was hypothesized.

The results of the first two regressions presented in Table 12 show that the negative correlation between Need for Approval and reflective appraisal is not significant ($F=1.94$); the positive correlation between Need for Approval and reflective appraisal is also not significant ($F=2.65$).

Table 11

Results of Regression Analysis for
Comparative Appraisal Comparisons

| COM = NAPP | | | | | |
|------------|-----|----------|----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sq. | F | R-square |
| Model | 1 | 14.4597 | 14.45970 | 15.02*** | 0.040166 |
| Error | 359 | 345.5403 | 0.9625 | | |
| Corrected | | | | Root MSE | |
| Total | 360 | 360.0000 | | 0.981075 | |

| COM = NACH | | | | | |
|------------|-----|----------|----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sq. | F | R-square |
| Model | 1 | 0.4973 | 0.49733 | ns | 0.001387 |
| Error | 358 | 358.0436 | 1.00012 | | |
| Corrected | | | | Root MSE | |
| Total | 359 | 358.5409 | | 1.000061 | |

| COM = DIFF | | | | | |
|------------|-----|----------|----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sq. | F | R-square |
| Model | 1 | 7.8159 | 7.81591 | 7.98** | 0.021799 |
| Error | 358 | 350.7250 | 0.97968 | | |
| Corrected | | | | Root MSE | |
| Total | 359 | 358.5409 | | 0.989787 | |

ns not significant

* p<.05

** p<.01

*** p<.001

**** p<.0001

Table 12

Results of Regression Analysis for
Reflective Appraisal Comparisons

| REF = NAPP | | | | | |
|------------|-----|----------|----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sq. | F | R-square |
| Model | 1 | 1.9381 | 1.93806 | ns | 0.005384 |
| Error | 359 | 358.0619 | 0.9974 | | |
| Corrected | | | | Root MSE | |
| Total | 360 | 360.0000 | | 0.998693 | |

| REF = NACH | | | | | |
|------------|-----|----------|----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sq. | F | R-square |
| Model | 1 | 2.6355 | 2.63554 | ns | 0.007349 |
| Error | 358 | 356.0018 | 0.99442 | | |
| Corrected | | | | Root MSE | |
| Total | 359 | 358.6374 | | 0.997205 | |

| REF = DIFF | | | | | |
|------------|-----|----------|----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sq. | F | R-square |
| Model | 1 | 6.8741 | 6.87409 | 7.00** | 0.019167 |
| Error | 358 | 351.7633 | 0.98258 | | |
| Corrected | | | | Root MSE | |
| Total | 359 | 358.6374 | | 0.991251 | |

ns not significant

* p<.05

** p<.01

*** p<.001

**** p<.0001

While the results of the third regression equation show that the differences in the correlations obtained in the first two models is significant ($F=7.00$, $p<.01$), the relationship is opposite from the predicted direction.

Taken together, these two analyses do not provide support for Hypothesis 1. While the use of monitoring strategies differs significantly between those individuals who are high in Need for Approval and those who are high in Need for Achievement, the relationships are in the opposite direction from those which were hypothesized. Individuals who are high in Need for Approval do not use either comparative appraisal or reflective appraisal more than those who are high in Need for Achievement.

Hypothesis 2 - Individuals who are high in Need for Approval are more likely to use monitoring strategies than inquiry strategies.

Table 13 shows the results of the regression analysis for the comparison of comparative appraisal with direct inquiry. The F-values for comparative appraisal and direct inquiry are significant ($F=15.02$, $p<.0001$ and $F=12.04$, $p<.001$, respectively). The difference between the use of comparative appraisal and direct inquiry for individuals high in Need for Approval is significant ($F=5.81$, $p<.05$). While the difference is significant, the relationship is in the wrong direction. That is, individuals who are high in Need for Approval use more direct inquiry than comparative appraisal when seeking feedback.

Table 13

Results of Regression Analysis Comparing
Comparative Appraisal with Direct Inquiry for
Individuals High in Need for Approval

| COM = NAPP | | | | | |
|------------|-----|----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 14.4597 | 14.459702 | 15.02*** | 0.040166 |
| Error | 359 | 345.5402 | 0.962508 | | |
| Corrected | | | | Root MSE | |
| Total | 360 | 360.0000 | | 0.981075 | |

| DIR = NAPP | | | | | |
|------------|-----|----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 11.58078 | 11.680776 | 12.04*** | 0.032447 |
| Error | 359 | 0.97025 | | | |
| Corrected | | | | Root MSE | |
| Total | 360 | 360.0000 | | 0.985012 | |

| DIFF = NAPP | | | | | |
|-------------|-----|-----------|-----------|-----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 52.13283 | 52.132926 | 28.33**** | 0.073142 |
| Error | 359 | 660.62791 | 1.840189 | | |
| Corrected | | | | Root MSE | |
| Total | 360 | 712.76073 | | 1.356536 | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

Table 14 contains the results which compare the use of referent appraisal and direct inquiry. There is no significant relationship between the use of reflective appraisal strategy and an individual's Need for Approval ($F=1.94$), but there is a significant positive correlation between direct inquiry and Need for Approval ($F=12.04$, $p<.001$). The difference between the use of reflective appraisal and direct inquiry strategies is significant ($F=16.42$, $p<.0001$). These results, however, show that the relationship is opposite of what was predicted. Individuals who are high in Need for Approval use more direct inquiry than reflective appraisal.

Table 15 contains the regression results comparing the use of comparative appraisal and indirect inquiry strategies. The relationships between Need for Approval and comparative appraisal and indirect inquiry are significant ($F=15.02$, $p<.0001$ and $F=7.25$, $p<.01$, respectively). However, the difference between comparative appraisal and indirect inquiry strategies is not significant ($F=0.72$).

The results of the regression analysis for referent appraisal and indirect inquiry are presented in Table 16. This analysis shows that there is not a significant relationship between Need for Approval and the use of referent appraisal strategy ($F=1.94$). There is a significant negative relationship between Need for Approval and indirect inquiry ($F=7.24$, $p<.01$). The difference between

Table 14

Results of Regression Analysis Comparing
Reflective Appraisal with Direct Inquiry for
Individuals High in Need for Approval

| REF = NAPP | | | | | |
|------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 1.93810 | 1.9380957 | 1.94** | 0.005384 |
| Error | 359 | 358.06190 | 0.9973870 | | |
| Corrected | | | | Root MSE | |
| Total | 360 | 360.00000 | | 0.998693 | |

| <u>DIR = NAPP</u> | | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 11.58078 | 11.680776 | 12.04*** | 0.032447 | |
| Error | 359 | 0.97025 | | | | |
| Corrected | | | | | Root MSE | |
| Total | 360 | 360.00000 | | | 0.985012 | |

| <u>DIFF = NAPP</u> | | | | | | |
|--------------------|-----|-----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 23.13485 | 23.134850 | 16.42*** | 0.043730 | |
| Error | 359 | 505.90953 | 1.409219 | | | |
| Corrected | | | | Root MSE | | |
| Total | 360 | 529.04438 | | 1.187105 | | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

Table 15

Results of Regression Analysis Comparing
Comparative Appraisal with Indirect Inquiry for
Individuals High in Need for Approval

| <u>COM = NAPP</u> | | | | | | |
|-------------------|-----|----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 14.4597 | 14.459702 | 15.02*** | 0.040166 | |
| Error | 359 | 345.5402 | 0.962508 | | | |
| Corrected | | | | Root MSE | | |
| Total | 360 | 360.0000 | | 0.981075 | | |

| <u>IND = NAPP</u> | | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 7.11485 | 7.114853 | 7.24** | 0.019763 | |
| Error | 359 | 352.88515 | 0.982967 | | | |
| Corrected | | | | Root MSE | | |
| Total | 360 | 360.00000 | | 0.991447 | | |

| <u>DIFF = NAPP</u> | | | | | | |
|--------------------|-----|-----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 1.28873 | 1.288732 | ns | 0.001989 | |
| Error | 359 | 646.69446 | 1.801377 | | | |
| Corrected | | | | Root MSE | | |
| Total | 360 | 647.98320 | | 1.342154 | | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

Table 16

Results of Regression Analysis Comparing
Referent Appraisal with Indirect Inquiry for
Individuals High in Need for Approval

| <u>REF = NAPP</u> | | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 1.93810 | 1.9380957 | 1.94** | 0.005384 | |
| Error | 359 | 358.06190 | 0.9973870 | | | |
| Corrected | | | | Root MSE | | |
| Total | 360 | 360.00000 | | 0.998692 | | |

| <u>IND = NAPP</u> | | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 7.11485 | 7.114853 | 7.24** | 0.019763 | |
| Error | 359 | 352.88515 | 0.982967 | | | |
| Corrected | | | | | Root MSE | |
| Total | 360 | 360.00000 | | 0.991447 | | |

| <u>DIFF = NAPP</u> | | | | | | |
|--------------------|-----|-----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 1.62617 | 1.626168 | ns | 0.002385 | |
| Error | 359 | 680.15595 | 1.894585 | | | |
| Corrected | | | | Root MSE | | |
| Total | 360 | 681.78212 | | 1.376439 | | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

the use of referent appraisal and indirect inquiry for individuals high in Need for Approval is not significant ($F=0.86$).

Hypothesis 2 was not supported. While there was no difference in the use of comparative appraisal when compared to indirect inquiry, there were significant differences found for the other comparisons. However, in all cases the observed relationships were not in the predicted direction.

Hypothesis 3 - Individuals who are high in Need for Achievement are more likely to use inquiry strategies than individuals who are high in Need for Approval.

As shown in Table 17, the correlations between both needs and direct inquiry are significant ($F=20.50$, $p<.0001$ and $F=12.04$, $p<.001$). Comparison of the use of direct inquiry strategy between persons high in Need for Achievement and high in Need for Approval is not significant ($F=1.54$, $p=.22$).

The results of the regressions involving the indirect inquiry strategy are contained in Table 18. There is a non-significant negative relationship between Need for Achievement and indirect inquiry ($F=0.90$, $p=.34$) and a significant negative relationship between Need for Approval and indirect inquiry ($F=7.24$, $p<.01$). The comparison regression shows no difference between the use of indirect inquiry for persons high in Need for Achievement and those high in Need for Approval ($F=1.80$, $p=.18$).

Table 17

Results of Regression Analysis for
Direct Inquiry Comparisons

| DIR = NACH | | | | | |
|------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 19.49232 | 19.492319 | 20.5**** | 0.054149 |
| Error | 358 | 340.48214 | 0.951067 | | |
| Corrected | | | | Root MSE | |
| Total | 359 | 359.97445 | | 0.97522 | |

| DIR = NAPP | | | | | |
|------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 11.68078 | 11.680776 | 12.04*** | 0.032447 |
| Error | 359 | 348.34922 | 0.971249 | | |
| Corrected | | | | Root MSE | |
| Total | 360 | 360.00000 | | 0.985012 | |

| DIR = DIFF | | | | | |
|------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 1.53777 | 1.5377743 | ns | 0.004272 |
| Error | 358 | 358.43671 | 1.0012199 | | |
| Corrected | | | | Root MSE | |
| Total | 359 | 359.97448 | | | |

ns not significant
 * p<.05
 ** p<.01
 *** p<.001
 **** p<.0001

Table 18

Results of Regression Analysis for
Indirect Inquiry Comparisons

| <u>IND = NACH</u> | | | | | | |
|-------------------|-----|----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 3.9048 | 3.9047611 | ns | 0.002518 | |
| Error | 358 | 358.4651 | 1.0012991 | | | |
| Corrected | | | | Root MSE | | |
| Total | 359 | 359.3698 | | | | |

| <u>IND = NAPP</u> | | | | | | |
|-------------------|-----|----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 7.1149 | 7.1148525 | 7.24** | 0.019763 | |
| Error | 359 | 352.8851 | 0.9829669 | | | |
| Corrected | | | | Root MSE | | |
| Total | 360 | 360.0000 | | 0.991446 | | |

| | | <u>IND = DIFF</u> | | | |
|-----------|-----|-------------------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 1.8425 | 1.8425392 | ns | 0.005000 |
| Error | 358 | 366.6841 | 1.0242573 | | |
| Corrected | | | | Root MSE | |
| Total | 359 | 368.5267 | | 1.012056 | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

Hypothesis 3 was not supported. Although the relationships were in the hypothesized direction, the differences between the use of inquiry strategies by persons high in Need for Achievement and those high in Need for Approval were not significant.

Hypothesis 4 - Individuals who are high in Need for Achievement are more likely to use inquiry strategies than monitoring strategies.

The results of the four sets of regression analyses for Hypothesis 4 are presented in Tables 19, 20, 21, and 22. There is a significant positive correlation between Need for Achievement and direct inquiry ($F=20.50$, $p<.0001$), and a non-significant negative correlation between Need for Achievement and comparative appraisal ($F=0.50$, $p>.48$), as seen in the regression analysis reported in Table 19. The regression results, which compared the use of direct inquiry and comparative appraisal, were significant ($F=13.71$, $p<.001$).

The results of the regression analysis comparing the use of direct inquiry and reflective appraisal among individuals high in Need for Achievement are presented in Table 20. There is a significant positive correlation between Need for Achievement and direct inquiry ($F=20.50$, $p<.0001$) and a non-significant negative correlation between Need for Achievement and reflective appraisal ($F=2.65$, $p=.10$). The comparison between direct inquiry and reflective appraisal is significant ($F=5.36$, $p<.05$).

Table 19

Results of Regression Analysis Comparing
Direct Inquiry with Comparative Appraisal for
Individuals High in Need for Achievement

| <u>DIR = NACH</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 19.49232 | 19.492319 | 20.5**** | 0.054149 |
| Error | 358 | 340.48214 | 0.951067 | | |
| Corrected | | | | Root MSE | |
| Total | 359 | 359.97448 | | 0.975227 | |

| <u>COM = NACH</u> | | | | | |
|-------------------|-----|----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.4973 | 0.49733 | ns | 0.001387 |
| Error | 358 | 358.0436 | 1.00012 | | |
| Corrected | | | | ROOT MSE | |
| Total | 359 | 358.5409 | | 1.000061 | |

| <u>DIFF = NACH</u> | | | | | |
|--------------------|-----|----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 26.2167 | 26.21674 | 13.71*** | 0.036879 |
| Error | 358 | 684.6734 | 1.91249 | | |
| Corrected | | | | ROOT MSE | |
| Total | 359 | 710.8902 | | 1.038293 | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

Table 20

Results of the Regression Analysis Comparing
Direct Inquiry with Referent Appraisal for
Individuals High in Need for Achievement

| <u>DIR = NACH</u> | | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 19.49232 | 19.492319 | 20.5**** | 0.054149 | |
| Error | 358 | 340.48214 | 0.951067 | | | |
| Corrected | | | | Root MSE | | |
| Total | 359 | 359.97448 | | 0.975227 | | |

| <u>REF = NACH</u> | | | | | | |
|-------------------|-----|----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 2.6355 | 2.63554 | ns | 0.007349 | |
| Error | 358 | 356.0018 | 0.99442 | | | |
| Corrected | | | | Root MSE | | |
| Total | 359 | 358.6374 | | 0.997205 | | |

| <u>DIFF = NACH</u> | | | | | | |
|--------------------|-----|-----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 7.79291 | 7.7929124 | 5.36* | 0.014758 | |
| Error | 358 | 520.23628 | 1.4531740 | | | |
| Corrected | 359 | 528.02919 | | ROOT MSE | | |
| Total | | | | 1.205477 | | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

Table 21 presents the results of the equations comparing indirect inquiry and comparative appraisal for those individuals who are high in Need for Achievement. The results show a negative, but insignificant correlation with both indirect inquiry ($F=0.90$, $p>.34$) and comparative appraisal ($F=0.50$, $p>.48$). The last regression equation shows indirect inquiry is not used more often by individuals high in Need for Achievement than is comparative appraisal ($F=0.03$, $p>.85$).

The results of the last set of equations for Hypothesis 4 are presented in Table 22. There is a non significant negative relationship between Need for Achievement and indirect inquiry ($F=0.90$, $p>.34$) and reflective appraisal ($F=2.65$, $p>.10$). Individuals high in Need for Achievement do not use indirect inquiry more than reflective appraisal ($F=3.52$, $p>.06$).

Hypothesis 4 is partially supported. Persons high in Need for Achievement use direct inquiry strategy more than either comparative or reflective appraisal monitoring strategies. However, there is no difference in their use of indirect inquiry or comparative or reflective appraisal.

Overall, the hypotheses concerned with the feedback seeking strategies used by individuals high in Need for Approval were not supported. Persons high in Need for Approval report using less, rather than more, comparative and referent appraisal than those who are high in Need for

Table 21

Results of Regression Analysis Comparing
Indirect Inquiry with Comparative Appraisal for
Individuals High in Need for Achievement

| IND = NACH | | | | | |
|------------|-----|----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.9048 | 0.9047611 | ns | 0.002518 |
| Error | 358 | 358.4651 | 1.0012991 | | |
| Corrected | | | | Root MSE | |
| Total | 359 | 359.3698 | | | |

| COM = NACH | | | | | |
|------------|-----|----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.4973 | 0.49733 | ns | 0.001387 |
| Error | 358 | 358.0436 | 1.00012 | | |
| Corrected | | | | Root MSE | |
| Total | 359 | 358.5409 | | | 1.000061 |

| DIFF = NACH | | | | | |
|-------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.06050 | 0.060503 | ns | 0.000094 |
| Error | 358 | 643.91563 | 1.798647 | | |
| Corrected | 359 | 643.97613 | | Root MSE | |
| Total | | | | | 1.341136 |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

Table 22

Results of Regression Analysis Comparing
Indirect Inquiry with Referent Appraisal for
Individuals High in Need for Achievement

| | | <u>IND = NACH</u> | | | |
|-----------|-----|-------------------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.9048 | 0.9047611 | ns | 0.002518 |
| Error | 358 | 358.4651 | 1.0012991 | | |
| Corrected | | | | Root MSE | |
| Total | 359 | 359.3698 | | | |

| <u>REF = NACH</u> | | | | | | |
|-------------------|-----|----------|----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sq. | F | R-square | |
| Model | 1 | 2.6355 | 2.63554 | ns | 0.007349 | |
| Error | 358 | 356.0018 | 0.99442 | | | |
| Corrected | | | | Root MSE | | |
| Total | 359 | 358.6374 | | 0.997205 | | |

| <u>DIFF = NACH</u> | | | | | | |
|--------------------|-----|-----------|-----------|----------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 6.62869 | 6.628688 | ns | 0.009725 | |
| Error | 358 | 675.01395 | | | | |
| Corrected | 359 | 681.64264 | | | | |
| Total | | | | ROOT MSE | | |
| | | | | 1.373140 | | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

Achievement. They also report using less, rather than more, comparative and referent appraisal than direct inquiry. The analyses produced mixed support for those hypotheses pertaining to the strategies used by individuals high in Need for Achievement. They do not use inquiry strategies more than those who are high in Need for Approval. Although they report using direct inquiry more than either comparative or reflective appraisal, they tend to use indirect inquiry with the same frequency as comparative and reflective appraisal.

Type of Feedback Sought

The results of the regression analyses which compare seeking evaluative feedback with comparative appraisal are contained in Tables 23 through 26.

Hypothesis 5 - Individuals who are high in Need for Approval are more likely to seek evaluative feedback than individuals who are high in Need for Achievement.

Three regression equations were used to test Hypothesis 5. The results of regression analyses, reported in Table 23, show that the relationship between Need for Approval and seeking evaluative feedback is not significant ($F=0.75$, $p>.38$), but the relationship between Need for Achievement and seeking evaluative feedback is negative and significant ($F=8.97$, $p<.01$). The comparison between Need for Approval and Need for Achievement on seeking evaluative feedback is significant ($F=12.46$, $p<.001$).

Table 23

Results of Regression Analysis for
Evaluative Feedback Comparisons

| EVL = NAPP | | | | | |
|------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.75537 | 0.755372 | ns | 0.002128 |
| Error | 354 | 354.24463 | 1.000691 | | |
| Corrected | 355 | 355.00000 | | | |
| Total | | | | ROOT MSE | |

| EVL = NACH | | | | | |
|------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 8.78025 | 8.7802466 | 8.97** | 0.024787 |
| Error | 353 | 345.44764 | 0.9786052 | | |
| Corrected | 354 | 354.22789 | | | |
| Total | | | | ROOT MSE | 0.989245 |

| EVL = DIFF | | | | | |
|------------|-----|------------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 35.96283 | 35.962832 | 12.46*** | 0.034100 |
| Error | 353 | 1018.66815 | 2.885746 | | |
| Corrected | 354 | 1054.63099 | | | |
| Total | | | | ROOT MSE | 1.698748 |

ns not significant
 * $p < .05$
 ** $p < .01$
 *** $p < .001$
 **** $p < .0001$

Hypothesis 5 is supported. Individuals high in Need for Approval seek more evaluative feedback than those who are high in Need for Achievement.

Hypothesis 6 - Individuals who are high in Need for Approval are more likely to seek evaluative feedback than cognitive feedback.

The regression analysis in Table 24 shows that, while relationship between Need for Approval and evaluative feedback was not significant ($F=0.75$, $p>.38$), the association between Need for Approval and cognitive feedback was negative, significant ($F=5.04$, $p<.05$). The regression, which compared seeking evaluative versus cognitive feedback by those individuals high in Need for Approval, was not significant ($F=0.59$, $p>.44$).

Hypothesis 6 was not supported. There was no difference in the type of feedback sought by persons who are high in Need for Approval.

Hypothesis 7 - Individuals who are high in Need for Achievement are more likely to seek cognitive feedback than individuals who are high in Need for Approval.

The results of the analyses testing Hypothesis 7 are presented in Table 25. The regression analyses shows that while both of those correlations are positive and significant ($F=15.59$, $p<.0001$ and $F=5.04$, $p<.05$, respectively), there is no difference in the type of feedback sought as a function of individual needs ($F=2.88$, $p<.09$).

Table 24

Results of Regression Analysis Comparing
Evaluative and Cognitive Feedback for
Individuals High in Need for Approval

| <u>EVL = NAPP</u> | | | | | | |
|-------------------|-----|-----------|-----------|----|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 0.75537 | 0.755372 | ns | 0.002128 | |
| Error | 354 | 354.24463 | 1.000691 | | | |
| Corrected | 355 | 355.00000 | | | ROOT MSE | |
| Total | | | | | | |

| <u>COG = NAPP</u> | | | | | | |
|-------------------|-----|-----------|-----------|-------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 4.98207 | 4.982070 | 5.04* | 0.013839 | |
| Error | 359 | 355.01793 | 0.988908 | | | |
| Corrected | 360 | 360.00000 | | | ROOT MSE | |
| Total | | | | | 0.994438 | |

| <u>DIFF = NAPP</u> | | | | | | |
|--------------------|-----|-----------|-----------|----|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 1.63066 | 1.630664 | ns | 0.001665 | |
| Error | 354 | 977.72173 | 2.761926 | | | |
| Corrected | 355 | 979.35239 | | | ROOT MSE | |
| Total | | | | | 1.661904 | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

Table 25

Results of Regression Analysis for
Cognitive Feedback Comparisons

| <u>COG = NACH</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 15.00265 | 15.002648 | 15.59*** | 0.041718 |
| Error | 358 | 344.61590 | 0.962614 | | |
| Corrected | 359 | 359.61855 | | ROOT MSE | |
| Total | | | | 0.981129 | |

| <u>COG = NAPP</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 4.98207 | 4.982070 | 5.04* | 0.013839 |
| Error | 359 | 355.01793 | 0.988908 | | |
| Corrected | 360 | 360.00000 | | ROOT MSE | |
| Total | | | | 0.994438 | |

| <u>COG = DIFF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 2.87010 | 2.870100 | ns | 0.007981 |
| Error | 358 | 356.74845 | 0.996504 | | |
| Corrected | 359 | 359.61855 | | ROOT MSE | |
| Total | | | | 0.099825 | |

ns not significant

* p<.05

** p<.01

*** p<.001

**** p<.0001

Hypothesis 7 was not supported. While the difference in the type of feedback sought by individuals high in Need for Achievement and those high in Need for Approval was in the predicted direction, the regression results were not statistically different.

Hypothesis 8 - Individuals who are high in Need for Achievement are more likely to seek cognitive feedback than evaluative feedback.

Table 26 contains the results of the three regression analyses used to test this hypothesis. The relationship between Need for Achievement and seeking cognitive feedback was positive, and the relationship between Need for Achievement and seeking evaluative feedback was negative. Both relationships were significant ($F=15.59$, $p<.0001$ and $F=8.97$, $p<.01$, respectively). The difference between seeking cognitive and evaluative feedback for individuals high in Need for Achievement was also significant ($F=16.94$, $p<.0001$).

Hypothesis 8 was supported. Persons who are high in Need for Achievement seek more cognitive than evaluative feedback.

The hypotheses concerned with the types of feedback sought by individuals high in Need for Approval and those high in Need for Achievement received mixed support. While persons high in Need for Approval tend to seek more evaluative feedback than those who are high in Need for Achievement, but they do not seek more evaluative than

Table 26

Results of Regression Analysis
Comparing Cognitive and Evaluative Feedback for
Individuals High in Need for Approval

| COG = NACH | | | | | |
|------------|-----|-----------|-----------|-----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 15.00265 | 15.002648 | 15.59**** | 0.041718 |
| Error | 358 | 344.61590 | 0.962614 | | |
| Corrected | 359 | 359.61855 | | ROOT MSE | |
| Total | | | | 0.981129 | |

| EVL = NACH | | | | | |
|------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 8.78025 | 8.7802466 | 8.97** | 0.024787 |
| Error | 353 | 345.44764 | 0.9786052 | | |
| Corrected | 354 | 354.22789 | | ROOT MSE | |
| Total | | | | 0.989245 | |

| DIFF = NACH | | | | | |
|-------------|-----|-----------|-----------|-----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 44.75501 | 44.755006 | 16.94**** | 0.045803 |
| Error | 353 | 932.36989 | 2.641274 | | |
| Corrected | 354 | 977.12489 | | ROOT MSE | |
| Total | | | | 1.625200 | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

cognitive feedback. Individuals high in Need for Achievement do not seek more cognitive feedback than those who are high in Need for Approval, but they do seek more cognitive than evaluative feedback.

Source of Feedback Sought

Tables 27 through 30 show the results of the regression analyses used to test seeking feedback from legitimate and expert sources by individuals high in Need for Approval and those high in Need for Achievement

Hypothesis 9 - Individuals who are high in need for approval prefer, and are more attentive to, feedback from high status individuals than individuals who are high in need for achievement.

Results of the regression analyses in Table 27 show that the positive relationship between Need for Approval and seeking feedback from legitimate sources is significant ($F=7.71$, $p<.01$), while the relationship between Need for Achievement and seeking feedback from legitimate sources is not significant ($F=0.00$, $p>.99$). The difference in seeking feedback from legitimate sources between individuals high in Need for Approval and Need for Achievement is significant ($F=5.05$, $p<.05$).

Hypothesis 9 is supported. Persons high in Need for Approval seek feedback from high status individuals more than those high in Need for Achievement do.

Table 27

Results of Regression Analysis for
Legitimate Source Comparisons

| LEG = NAPP | | | | | | |
|------------|-----|-----------|-----------|--------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 7.56963 | 7.569628 | 7.71** | 0.021027 | |
| Error | 359 | 352.43037 | 0.981700 | | | |
| Corrected | 360 | 360.00000 | | | ROOT MSE | |
| Total | | | | | 0.990808 | |

| LEG = NACH | | | | | | |
|------------|-----|-----------|-----------|----|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 0.00000 | 0.000004 | ns | 0.000000 | |
| Error | 358 | 358.30664 | 1.000857 | | | |
| Corrected | 359 | 358.30664 | | | ROOT MSE | |
| Total | | | | | 1.000428 | |

| LEG = DIFF | | | | | | |
|------------|-----|-----------|-----------|-------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 4.98179 | 4.981788 | 5.05* | 0.013904 | |
| Error | 358 | 353.32485 | 0.986941 | | | |
| Corrected | 359 | 358.30664 | | | ROOT MSE | |
| Total | | | | | 0.993449 | |

ns not significant

* p<.05

** p<.01

*** p<.001

**** p<.0001

Hypothesis 10 - Individuals who are high in need for approval prefer, and are more attentive to, feedback from high status individuals than from individuals who are perceived to be expert.

The results of the analyses for hypothesis 10 are presented in Table 28. There is a positive correlation between Need for Approval and seeking feedback from legitimate sources and a negative correlation between Need for Approval and seeking feedback from expert sources. The regression results shown in Table 28 show that the correlations are both significant ($F=7.71$, $p<.01$ and $F=12.48$, $p<.001$, respectively). The difference in the correlations is significant ($F=16.39$, $p<.0001$).

Hypothesis 10 is supported. Individuals high in Need for Approval seek feedback from legitimate sources more than they seek feedback from expert sources.

Hypothesis 11 - Individuals who are high in need for achievement prefer, and are more attentive to, feedback from individuals who are perceived to be expert than individuals who are high in need for approval.

The regression analyses in Table 29 shows that the relationship between both needs and seeking feedback from expert sources are negative significant ($F=6.15$, $p<.01$, for Need for Achievement and $F=12.48$, $p<.001$ for Need for Approval). The difference between the two regression slopes is not significant ($F=.40$, $p>.52$).

Hypothesis 11 is not supported. Individuals high in Need for Achievement do not seek feedback from expert

Table 28

Results of Regression Analysis
Comparing Legitimate and Expert Sources for
Individuals High in Need for Approval

| LEG = NAPP | | | | | |
|------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 7.56963 | 7.569628 | 7.71** | 0.021027 |
| Error | 359 | 352.43037 | 0.981700 | | |
| Corrected | 360 | 360.00000 | | ROOT MSE | |
| Total | | | | 0.990808 | |

| EXP = NAPP | | | | | |
|------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 12.09442 | 12.094421 | 12.48*** | 0.033783 |
| Error | 357 | 345.90558 | 0.968923 | | |
| Corrected | 358 | 358.00000 | | ROOT MSE | |
| Total | | | | 0.984339 | |

| DIFF = NAPP | | | | | |
|-------------|-----|-----------|-----------|-----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 36.72335 | 36.723349 | 16.39**** | 0.043887 |
| Error | 357 | 800.04212 | 2.241014 | | |
| Corrected | 358 | 836.76547 | | ROOT MSE | |
| Total | | | | 1.497002 | |

ns not significant

* p<.05

** p<.01

*** p<.001

**** p<.0001

Table 29

Results of Regression Analysis for
Expert Source Comparisons

| <u>EXP = NACH</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 6.06583 | 6.065830 | 6.15** | 0.016944 |
| Error | 357 | 351.93417 | 0.985810 | | |
| Corrected | 358 | 358.00000 | | ROOT MSE | |
| Total | | | | 0.992880 | |

| <u>EXP = NAPP</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 12.09442 | 12.094421 | 12.48*** | 0.033783 |
| Error | 357 | 345.90558 | 0.968923 | | |
| Corrected | 358 | 358.00000 | | ROOT MSE | |
| Total | | | | 0.984339 | |

| <u>EXP = DIFF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.40021 | 0.400207 | ns | 0.001118 |
| Error | 357 | 357.59979 | 1.001680 | | |
| Corrected | 358 | 358.00000 | | ROOT MSE | |
| Total | | | | 1.000840 | |

ns not significant

* p<.05

** p<.01

*** p<.001

**** p<.0001

sources more than do individuals who are high in Need for Approval.

Hypothesis 12 - Individuals who are high in Need for Achievement prefer, and are more attentive to, feedback from individuals who are perceived to be expert than from individuals who are high status.

Results of the regression analysis in Table 30 shows that the negative relationship between Need for Achievement and seeking feedback from expert sources is significant ($F=6.15$, $p<.01$), and the relationship between Need for Achievement and seeking feedback from legitimate sources is not significant ($F=0.00$, $p>.99$). The difference between seeking feedback from expert and legitimate sources for individuals high in Need for Achievement is not significant ($F=2.61$, $p>.10$).

Hypothesis 12 is not supported. Individuals high in Need for Achievement do not seek feedback from expert sources more than from legitimate sources. Although the difference equation resulted in a non-significant F-statistic, the result of the analysis that tested the relationship was in the direction opposite from that which was predicted.

The hypotheses concerned with seeking feedback from legitimate and expert sources among individuals high in Need for Approval and those high in Need for Approval received mixed support. Persons high in Need for Approval seek feedback from high status individuals more than those high

Table 30

Results of Regression Analysis
Comparing Expert and Legitimate Sources for
Individuals High in Need for Achievement

| <u>EXP = NACH</u> | | | | | | |
|-------------------|-----|-----------|-----------|--------|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 6.06583 | 6.065830 | 6.15** | 0.016944 | |
| Error | 357 | 351.93417 | 0.985810 | | | |
| Corrected | 358 | 358.00000 | | | ROOT MSE | |
| Total | | | | | 0.992880 | |

| <u>LEG = NACH</u> | | | | | | |
|-------------------|-----|-----------|-----------|----|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 0.00000 | 0.000004 | ns | 0.000000 | |
| Error | 358 | 358.30664 | 1.000857 | | | |
| Corrected | 359 | 358.30664 | | | ROOT MSE | |
| Total | | | | | 1.000428 | |

| <u>DIFF = NACH</u> | | | | | | |
|--------------------|-----|-----------|-----------|----|----------|--|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square | |
| Model | 1 | 6.07690 | 6.076900 | ns | 0.007262 | |
| Error | 357 | 830.68857 | 2.326859 | | | |
| Corrected | 358 | 836.76547 | | | ROOT MSE | |
| Total | | | | | 1.525404 | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

in Need for Achievement do, and they seek feedback more from high status individuals than from expert individuals. However, individuals high in Need for Achievement did not differ in seeking feedback from expert sources from those high in Need for Approval. They also did not seek feedback from expert sources more than from high status ones.

Performance

Hypotheses 13 through 15 concern differences in performance as a function of feedback seeking strategies, types of feedback sought, and the sources of feedback sought. The results of the analyses used to test these hypotheses are contained in Tables 31 through 36.

Hypothesis 13 - Individuals who use an inquiry strategy are more likely to have higher performance evaluations than individuals use use a monitoring strategy.

Tables 31 through 34 contain the results of the regression analyses for Hypothesis 13. None of these relationships are significant ($F=3.53$, $p>.05$ for direct inquiry; $F=2.20$, $p>.10$ for comparative appraisal; $F=0.79$, $p>.39$ for reflective appraisal; and $F=1.77$, $p>.18$ for indirect inquiry). There is no difference in performance evaluations as a function of direct inquiry versus comparative appraisal ($F=0.04$, $p>.83$) or direct inquiry versus reflective appraisal ($F=0.61$, $p>.43$). The comparison of indirect inquiry and comparative appraisal was

Table 31

Results of Regression Analysis
Comparing Effects of Direct Inquiry and
Comparative Appraisal on Performance

| <u>DIR = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 3.49859 | 3.498589 | ns | 0.012540 |
| Error | 278 | 275.50141 | 0.991012 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 0.995496 | |

| <u>COM = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 2.18817 | 2.188172 | ns | 0.007843 |
| Error | 278 | 276.81183 | 0.995726 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 0.997861 | |

| <u>DIFF = PERF</u> | | | | | |
|--------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.04152 | 0.041521 | ns | 0.000149 |
| Error | 278 | 278.95848 | 1.003443 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 1.001722 | |

ns not significant

* p<.05

** p<.01

*** p<.001

**** p<.0001

Table 32

Results of Regression Analysis
Comparing Effects of Direct Inquiry and
Referent Appraisal on Performance

| <u>DIR = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 3.49859 | 3.498589 | ns | 0.012540 |
| Error | 278 | 275.50141 | 0.991012 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 0.995496 | |

| <u>REF = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.72007 | 0.720071 | ns | 0.002581 |
| Error | 278 | 278.27993 | 1.001007 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 1.000503 | |

| <u>DIFF = PERF</u> | | | | | |
|--------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.61477 | 0.614775 | ns | 0.002203 |
| Error | 278 | 278.38523 | 1.001386 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 1.000693 | |

ns not significant

* p<.05

** p<.01

*** p<.001

**** p<.0001

Table 33

Results of Regression Analysis
Comparing Effects of Indirect Inquiry and
Comparative Appraisal on Performance

| <u>IND = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 1.76592 | 1.765916 | ns | 0.006329 |
| Error | 278 | 277.23408 | 0.997245 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 0.998625 | |

| <u>COM = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 2.18817 | 2.188172 | ns | 0.007843 |
| Error | 278 | 276.81183 | 0.995726 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 0.997861 | |

| <u>DIFF = PERF</u> | | | | | |
|--------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 4.16533 | 4.165335 | 4.21* | 0.014930 |
| Error | 278 | 274.83467 | 0.988614 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 0.994291 | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

Table 34

Results of Regression Analysis
Comparing Effects of Indirect Inquiry and
Referent Appraisal on Performance

| <u>IND = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 1.76592 | 1.765916 | ns | 0.006329 |
| Error | 278 | 277.23408 | 0.997245 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 0.998625 | |

| <u>REF = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.72007 | 0.720071 | ns | 0.002581 |
| Error | 278 | 278.27993 | 1.001007 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 1.000503 | |

| <u>DIFF = PERF</u> | | | | | |
|--------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 2.50794 | 2.507938 | ns | 0.008989 |
| Error | 278 | 276.49206 | 0.995476 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 0.997284 | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

significant ($F=4.21$, $p<.05$), but the comparison of indirect inquiry and reflective appraisal was not significant ($F=2.52$, $p>.11$).

Hypothesis 13 was not generally supported. Only one of the four regression analyses resulted in a significant F-statistic; the one significant comparison yielded a result opposite that which was predicted. There is no difference in performance evaluations as a result of using direct inquiry, comparative appraisal, or reflective appraisal. When indirect inquiry was compared with the monitoring strategies, the only significant finding was that there was a difference in performance evaluations between indirect inquiry and comparative appraisal, but the relationship was opposite that which was predicted.

Hypothesis 14 - Individuals who seek cognitive feedback are more likely to have higher performance evaluations than individuals who seek evaluative feedback.

As indicated in Table 35, relationships between performance evaluations and seeking cognitive feedback and between performance evaluations and seeking evaluative feedback are non-significant ($F=0.09$, $p>.76$ and $F=0.54$, $p>.44$, respectively). There is no significant difference in performance evaluations as a function of the type of feedback sought ($F=0.37$, $p>.54$).

Table 35

Results of Regression Analysis
Comparing Effects of Cognitive and Evaluative Feedback
on Performance

| <u>COG = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.09074 | 0.090738 | ns | 0.000325 |
| Error | 278 | 278.90926 | 1.003271 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 1.001634 | |

| <u>EVL = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.53441 | 0.534408 | ns | 0.001954 |
| Error | 274 | 273.02406 | 0.996438 | | |
| Corrected | 275 | 273.55847 | | ROOT MSE | |
| Total | | | | 0.998217 | |

| <u>DIFF = PERF</u> | | | | | |
|--------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.37238 | 0.372376 | ns | 0.001361 |
| Error | 274 | 273.18609 | 0.997030 | | |
| Corrected | 275 | 273.55847 | | ROOT MSE | |
| Total | | | | 0.998514 | |

ns not significant
 * p<.05
 ** p<.01
 *** p<.001
 **** p<.0001

Hypothesis 14 was not supported. Seeking cognitive feedback does not result in a higher performance evaluation than seeking evaluative feedback.

Hypothesis 15 - Individuals who seek feedback from persons perceived as expert are more likely to have higher performance evaluations than individuals who seek feedback from high status persons.

The regression analyses presented in Table 36 show that the positive relationship between performance evaluations and seeking feedback from expert sources is not significant ($F=0.01$, $p>.99$), while the negative relationship between performance evaluations and seeking feedback from legitimate sources is significant ($F=8.38$, $p<.01$). The comparison of performance evaluations as a result of seeking feedback from expert versus legitimate sources is significant ($F=3.72$, $p=.05$).

Hypothesis 15 is supported. Persons who seek feedback from expert sources are more likely to receive higher performance evaluations than are those who seek feedback from legitimate sources.

The analyses yielded mixed support for the relationships between feedback seeking behavior and performance; only one hypothesis was supported. Persons who seek feedback from expert sources perform better than those who seek feedback from legitimate sources. The other hypotheses were not supported. Individuals who employ an indirect inquiry strategy report receiving lower, rather

Table 36

Results of Regression Analysis
Comparing Effects of Expert and Legitimate Sources
on Performance

| <u>EXP = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 0.01034 | 0.010344 | ns | 0.000037 |
| Error | 276 | 278.90800 | 1.010536 | | |
| Corrected | 277 | 278.91834 | | ROOT MSE | |
| Total | | | | 1.005254 | |

| <u>LEG = PERF</u> | | | | | |
|-------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 8.16098 | 8.160983 | 8.38** | 0.29251 |
| Error | 278 | 270.83902 | 0.974241 | | |
| Corrected | 279 | 279.00000 | | ROOT MSE | |
| Total | | | | 0.987037 | |

| <u>DIFF = PERF</u> | | | | | |
|--------------------|-----|-----------|-----------|----------|----------|
| Source | DF | Sum Sqs. | Mean Sqr. | F | R-square |
| Model | 1 | 3.70492 | 3.704919 | 3.72* | 0.013283 |
| Error | 276 | 275.21342 | 0.997150 | | |
| Corrected | 277 | 278.91834 | | ROOT MSE | |
| Total | | | | 0.998574 | |

ns not significant

* $p < .05$

** $p < .01$

*** $p < .001$

**** $p < .0001$

than higher, performance evaluations. There were no differences in performance evaluations between those who used direct inquiry, comparative appraisal, or reflective appraisal strategies. In addition, there were no differences in performance evaluations as a function of the type of feedback sought.

In the next chapter, the results presented here will be discussed. The chapter will also contain implications and directions for future research.

CHAPTER 4

DISCUSSION AND CONCLUSION

In this final chapter we consider the implications of the results of this research for understanding the nature of feedback in organizational life. Directions for extending this theory of feedback seeking, improving methodology, and improving feedback mechanisms in ongoing organizations are highlighted as well.

The Nature of Feedback Seeking Behavior Reconsidered

In this section, the results of the regression analyses presented in Chapter 3 are discussed. The discussion will consider each set of hypotheses in turn, beginning with those concerning the relationships among individual needs and feedback seeking strategies.

Individual Needs and Feedback Seeking Strategies

The hypotheses about the relationships between individual needs and feedback seeking behavior were generally not supported. In some cases, the observed relationships were not significant; in others the observed relationships were not in the predicted direction.

There is a significant difference in the use of monitoring strategies between those individuals who are high in Need for Approval and those who are high in Need for

Achievement (Hypothesis 1). However, the observed relationship was not in the predicted direction.

Individuals high in Need for Approval reported using significantly less comparative and referent appraisal than those who are high in Need for Achievement.

Comparisons of the use of monitoring strategies versus inquiry strategies among individuals high in Need for Approval (Hypothesis 2) provided no support for the hypothesis. There was no difference in the use of comparative appraisal monitoring when compared to indirect inquiry. There is a significant difference in the use of monitoring versus inquiry for individuals high in Need for Approval. Contrary to the prediction, high Need for Approval individuals report using less comparative and referent appraisal than direct inquiry.

No support was found for the prediction that individuals high in Need for Achievement would use inquiry more than those who are high in Need for Approval (Hypothesis 3). While the observed relationship was in the predicted direction for all strategy comparisons, none were significant. Individuals high in Need for Achievement do not report using inquiry strategies more than individuals who are high in Need for Approval. Instead, they use inquiry strategies with the same frequency as those high in Need for Approval.

Those high in Need for Achievement use direct inquiry more than either comparative or reflective appraisal monitoring (Hypothesis 4). However, there is no difference in their use of indirect inquiry versus comparative and reflective appraisal. In other words, persons high in Need for Achievement use direct inquiry more than comparative appraisal, reflective appraisal, and indirect inquiry.

Taken together, these four hypotheses do not support the contention that individual needs have a strong and systematic effect on feedback seeking strategies. It is quite likely that situational factors, such as the availability of coworkers, the visibility of poor performance to supervisors, or supervisor encouragement more likely determine how individuals seek feedback.

Individual Needs and Type of Feedback Sought

The results for the four hypotheses concerned with individual needs and the type of feedback sought were in the predicted direction, but were generally not statistically significant. Individuals high in Need for Approval report seeking significantly more evaluative feedback than individuals high in Need for Achievement (Hypothesis 5). While individuals high in Need for Approval tend to seek more evaluative than cognitive feedback, the observed relationship for Hypothesis 6 was not significant; that is, these persons seek both evaluative and cognitive feedback with equal frequency.

The results of Hypotheses 7 and 8 were also in the predicted direction, but only the results for Hypothesis 7 was statistically significant. Individuals high in Need for Achievement seek more cognitive feedback than those high in Need for Approval, but the differences are not significant. Both approval-dependent and achievement-motivated individuals seek cognitive feedback with similar frequency. However, high achievement oriented persons do seek more cognitive than evaluative feedback.

All in all, individuals high in Need for Approval seem to prefer and to seek out evaluative feedback more than those who are high in Need for Achievement. For these individuals, the benefits of knowing how they are doing in general outweigh the costs associated with the lack of performance-specific feedback. Those high in achievement motivation prefer and seek out cognitive feedback more than evaluative feedback. For them, the benefits of seeking specific feedback outweigh the costs incurred when seeking specific feedback.

Individual Needs and Source of Feedback Sought

The hypotheses concerned with individual needs and the source of feedback received partial support. Hypotheses 9 and 10 were both supported. Individuals high in Need for Approval prefer and report seeking feedback more from legitimate sources than from expert sources, and they do so more than individuals high in Need for Achievement. The

two hypotheses concerned with the relationship between Need for Achievement and seeking feedback from expert sources were not supported. The results obtained for Hypothesis 11 were not significant, and the relationship was opposite that predicted; that is, individuals high in Need for Achievement do not seek feedback from expert sources more than individuals who are high in Need for Approval. Hypothesis 12 was also not supported. Individuals high in Need for Achievement report seeking feedback more from expert than legitimate sources, but the difference was not significant.

The results in this section suggest that individuals high in achievement motivation are perhaps more flexible than was originally hypothesized. Perhaps they seek feedback from many sources to help in their pursuit of performance excellence. Persons high in approval motivation may not be as flexible about where they seek feedback since they tend to seek feedback mainly from legitimate sources; they are likely to be more source-sensitive than outcome-sensitive.

Feedback Seeking Behavior and Performance

The last three hypotheses concern differences in performance and the feedback seeking strategy employed, the type of feedback sought, and the source from which feedback was sought. Only one of the hypotheses was supported.

There is no difference in performance as a result of using direct inquiry, comparative appraisal, or reflective

appraisal (Hypothesis 13). These relationships were all positive; performance evaluations tended to be higher when these three strategies were used. Indirect inquiry did have a significant effect on performance relative to the other strategies. However, its effect was opposite that which was predicted; indirect inquiry was associated with a lower, rather than higher, performance.

Hypothesis 14 was also not supported. Individuals who sought cognitive feedback versus evaluative feedback tended to have slightly higher performance evaluations, but the difference was not significant. In other words, the type of feedback has no systematic effect on performance.

The results obtained for Hypothesis 15 indicate that the source of feedback has a significant impact on performance. Persons who seek feedback from expert sources receive higher performance evaluations than those who seek feedback from legitimate sources. In addition, the test for this hypothesis revealed that seeking feedback from legitimate sources tends to lower performance evaluations.

In general, then, the strategy one uses and the type of feedback one seeks have no significant impact on performance. Other factors, such as ability or years on the job, probably have a greater impact on performance. However, individuals who seek feedback from an expert source have higher performance evaluations than those who seek

feedback from a legitimate source, probably because they get more constructive and useful feedback from expert sources.

Extensions of Theories on Feedback Seeking Behavior

As discussed in Chapter 1, the focus of feedback research has traditionally been on the organization and has considered the individual as a passive feedback receiver. This dissertation has taken the point of view that the individual is an active feedback seeker whose behavior is guided by the functions of feedback and the costs incurred in seeking feedback. While previous research has focused largely on the situational determinants of feedback seeking, this dissertation expands our knowledge by considering the role of individual differences in the feedback process. However, much remains to be learned.

Individual Needs

We proposed that individual differences would affect feedback seeking strategy, type of feedback sought, and the source of feedback sought. We argued that, for individuals high in Need for Approval, feedback would serve approval functions but would also entail face loss costs. For those high in Need for Achievement, feedback would serve performance functions but would also entail inference costs. In general, the hypotheses concerned with Need for Achievement received support; those involving Need for Approval did not. Moreover, the results for those

hypotheses involving Need for Approval tended to be opposite the predicted direction; those involving Need for Achievement, while not all significant, were in the predicted direction. The results in this section, then, are generally weak, and there are two possible reasons for the lack of significant findings in the predicted direction.

First, the Marlowe-Crowne Social Desirability scale may not be the most valid measure of the Need for Approval. Recent research by Ballard, Crino and Rubenfeld (1989), Paulhus (1984), Ramanaiah and Martin (1989), and Reynolds (1982) suggest that the M-CSD scale may have some of the following problems as a measure of Need for Approval: lack of construct validity, unstable factor structure, and construct contamination.

Second, there may be other individual difference measures which may more directly influence employees' feedback seeking strategies. Two, in particular, might be considered more carefully: self-esteem and locus of control. These traits are significantly related to the source from which one seeks feedback and may be related to the choice of strategy. For example, researchers have concluded that persons high in self-esteem rely less on feedback for others (Weiss, 1977) and are not overly sensitive to negative feedback (Shrauger & Rosenberg, 1970). These researchers suggest that individuals with high self-esteem might be more likely to obtain feedback from the task

itself or from their own behavior and might not incur face loss costs when seeking feedback from others. In addition, Baron and his colleagues argue that persons with an internal locus of control are more aware of feedback from the task than internals and are more likely to avoid feedback that they perceive as too controlling (Baron & Ganz, 1972; Baron et al, 1974). Individuals high on internal locus of control might be more likely to seek feedback from their own behavior or from the task itself and to prefer evaluative, rather than cognitive, feedback.

Feedback Seeking Strategies

The results here produced mixed support for hypotheses concerning feedback seeking strategy. Direct inquiry was consistently used more frequently than comparative appraisal, reflective appraisal, or indirect inquiry. It seems that individuals prefer to ask direct questions about their performance rather than to observe others' behavior and reactions or to ask indirect questions. This is probably because less direct methods of inquiry may actually increase the uncertainty regarding performance which originally initiated the feedback seeking.

Previous theory and research has generally considered two broad classes of strategies--monitoring and inquiry--each with two major components. The results obtained in this study indicate that while monitoring is comprised of two closely related subelements (comparative and reflective

appraisal) inquiry is not. There is a significant negative correlation between direct and indirect inquiry. Future researchers need to be careful, therefore, to consider four independent feedback seeking strategies rather than two broad umbrella variables.

Sources of Feedback

This study originally conceptualized supervisors as legitimate sources of feedback and others in the work place as expert sources of feedback. However, there was no way to test this assumption in the current study. Future research might consider the characteristics of each supervisor, and try to identify whether or not the feedback seeker considers the supervisor as a legitimate or expert source of feedback. Part of the results here could be due to viewing the supervisor as a simultaneously legitimate and expert source of feedback.

Two other sources of feedback were not considered in this study--feedback from one's self and feedback from the job itself (Ilgen et al., 1979). Feedback from one's self refers to the individual's own feelings and ideas about how well he or she is meeting performance goals. Greller and Herold (1975) have identified the self as the source upon which individuals rely most heavily. Along the same lines, feedback from the job itself may be built into the task (Ilgen et al., 1979). Both feedback from one's self and from the job itself might reduce the reliance on monitoring

and inquiry strategies and on seeking feedback from others. Additional research on sources of feedback sought should include these sources.

Performance

When developing the hypotheses about the effect of feedback seeking behavior on performance, it was argued that performance would be affected by strategy, type of feedback, and source of feedback. This argument was based on the notion that information accuracy and relevance is higher when using inquiry, seeking cognitive feedback, and seeking feedback from an expert source.

The results supported the hypothesis about the expert source; there were no differences when comparing the performance effects for strategy and type of feedback. This suggests that performance levels among employees might differ not because one strategy or type of feedback is more accurate than another, but because individuals differ in how accurately they "read" the ambiguous information derived from monitoring or evaluative feedback. Snyder (1987) has found, for example, that individuals who are high self-monitors are more sensitive to and more accurate in assessing the feelings of others. A similar sensitivity and accuracy may explain why individuals who use monitoring and seek evaluative feedback perform as well as those who use direct inquiry and seek cognitive feedback. Feedback

research might be directed to finding and understanding differences in how individuals make sense out of feedback.

Alternatively, performance on the job can be strongly affected by several variables not considered in this research: ability, motivation, reward systems, and so forth. The relationship between feedback seeking and performance may exist, but may not be as robust as the relationships between performance and these other factors.

Functions and Costs of Seeking Feedback

This study indirectly considered three of the seven functions of feedback (signalling, uncertainty reducing, and goal attainment) and one of the three costs of seeking feedback (face loss). It was argued that these functions and costs affected feedback seeking behavior through differences in individual needs. Four areas for future research are suggested by the results.

First, the relationships among functions of feedback, costs of seeking feedback, and feedback seeking behavior are stronger amongst themselves than they are with the individual needs measures. This suggests that the functions of feedback and the costs of seeking feedback may be more useful in explaining differences in feedback seeking behavior than the two individual needs chosen in this study.

Second, since only three functions and one cost of seeking feedback were considered in this study, subsequent research would be well served by considering other functions

of feedback and costs of feedback seeking. These could be studied in relation to individual differences or as determinants of feedback seeking in their own right.

Third, the dissertation argued that the functions of feedback and the costs of seeking feedback would jointly affect the choices of strategy, type of feedback, and source of feedback. The results did not fully support that contention. One possible explanation for the results obtained in this study is that the functions of feedback might have a different effect on strategy, type of feedback, and source of feedback than the costs of seeking feedback do. For example, individuals may consider the costs of seeking feedback when choosing feedback seeking strategy, but they may consider the functions that feedback serves when selecting the type of feedback they seek. Additional research might identify these different effects of functions of feedback and costs of seeking feedback.

Fourth, this study argued that when the costs associated with one type of feedback seeking strategy were high, the individual would choose a different type of strategy. This assumes that monitoring and inquiry are opposites and mutually exclusive, and that choosing one type of strategy is equivalent to not choosing the other. It may be, however, that the individual can choose both, using monitoring and inquiry strategies simultaneously. Individuals may differ not in their use of one strategy over

the other, but in the mix of different strategies. Studies directed to this issue would be helpful in understanding how individuals seek feedback.

Positiveness and Amount of Feedback Received

This study looked at feedback as a whole and made no distinction between formal and informal feedback. The differences in the type and amount of formal and informal feedback might have a significant effect on the individual's feedback seeking behavior. For example, individuals might expect formal feedback to be given infrequently and to be evaluative, and they might expect informal feedback to be given very frequently and to be performance-specific. If informal feedback is evaluative and given infrequently, individuals may use a different strategy, may seek a different type of feedback, and may seek feedback from different sources than when formal evaluation is evaluative and given infrequently.

In addition, this study did not consider how the sign of feedback that individuals currently receive (positive or negative) might affect feedback seeking behavior. The correlations in Table 10 indicate one avenue for future theory and research. They show that overall ratings, suggestions on how to improve performance, and praise increase the use direct inquiry and that suggestions on how to improve and criticism increase monitoring and indirect inquiry. It is likely that ratings, suggestions, and praise

might characterize a supportive atmosphere where employees are encouraged to seek out performance enhancing feedback, while suggestions and criticism characterizes a more hostile atmosphere where employees are afraid to ask about their performance. Future research should consider how differences in feedback atmosphere might affect feedback seeking.

An implicit argument used to develop the hypotheses here was that dissatisfaction with the type and amount of feedback initiated feedback seeking. However, this assumption was not tested. Future research questions along this line might include: What type of feedback deficiency causes dissatisfaction? How does dissatisfaction with different types of feedback effect the type of feedback sought and from whom one seeks feedback?

Directions for Improving Research Methodology

Since the rigor of social science research is often less than ideal, the conclusions and implications of this study must be qualified by constraints of the current research design. These constraints and suggested improvements in future research are discussed in more detail below.

Measurement of Variables

Valid tests of hypotheses are dependent on reliable and valid measures (Nunnally, 1979). In this study, there were

some measurement problems with the feedback seeking scales and the Marlowe-Crowne Social Desirability scale.

Feedback seeking behavior scales

The measures used to assess feedback seeking behavior were constructed for the purpose of this study. The scales have some content validity in the way they were constructed, and the internal consistency and factorial validity of the scales were found to be adequate (see Chapter 2). However, the scale reliabilities are somewhat low, and the construct validity of the scales has not been established. Since this is the first time these scales have been used, and no other feedback seeking behavior scales exist, it was not possible to obtain correlations with measures of demonstrated validity as suggested by Schwab (1980) and Mitchell (1985). Therefore, the conclusions of this study are tempered by the extent to which these scales adequately and truly measure feedback seeking behavior.

In addition, these scales only indirectly measured feedback seeking behavior. The items asked, in general, what individuals would do if they needed more information about their job performance. They did not ask what they actually did do to obtain more information. This distinction is important for two reasons. First, it measures intentions to behave in a particular way. While some researchers indicate that intentions and behavior are highly correlated, they are not the same. This study,

therefore, is limited by the degree to which intentions are an adequate surrogate for behavior.

Second, self-reports of intentions may be more subject to response biases than self-reports of behavior. Since behavior is observable by others, individuals may be less likely to "lie" about what they did for fear that their lie could be found out. In addition, an individual may be more likely to tell the researcher how he or she would like to behave rather than how he or she would actually behave in a particular situation. This potential distortion produces results that are not unequivocal.

Marlowe-Crowne social desirability scale

The M-CSD scale used to assess Need for Approval presents an additional limitation on this study. This scale was selected because it is the most often used measure of Need for Approval (cf. Ganster et al., 1983; Zerbe & Paulhus, 1987). In addition, over twenty-five years of experimental research has produced numerous personality and behavioral correlates. Despite high reliabilities (generally around .88) and some evidence of construct validity through its behavioral correlates (Crowne, 1979; Evans, 1982; Millham & Jacobson; 1978 Strickland, 1977) the M-CSD may have confounded tests of the hypotheses.

For example, there is some research on the dimensionality of the scale that suggests that the factor structure is unstable across samples (Crino, Svoboda,

Rubinfeld & White, 1983; Ford, 1964; Ramanaiah, Schill & Leung, 1977; Paulhus, 1984; Rump & Court, 1971). Other studies have identified significant problems with the way the scale was constructed (Ballard, Crino & Rubinfeld, 1988; Crino et al, 1983). Still others have identified severe overlaps with other supposedly independent constructs (Crowne & Marlowe, 1960, 1964; Ramanaiah et al., 1977; Rump & Court, 1971). For example, Crowne and Marlowe (1960, 1964) contend that the M-CSD is independent of pathology but report that it is significantly correlated with the K (defensiveness), Lie, and paranoia subscales of the MMPI.

The results obtained in this study seem to contradict previous research on Need for Approval. That research has demonstrated that individuals high in Need for Approval avoid evaluation (Efran & Boylin, 1967); that is, they do not ask for performance feedback when given the opportunity. In addition, high Need for Approval individuals show a marked preference for evaluative rather than cognitive feedback (Kanfer & Marston, 1964). However, in this study, individuals high in Need for Approval prefer cognitive feedback. There are three possible explanations for the contradictory findings.

First, individuals may behave one way in the lab (one type of situation) and another in the real world (quite a different type of situation). Moreover, the causes of behavior are myriad and complex; experimental research

overly simplifies behavior and its causes by artificially restricting or manipulating behavior choices (Mitchell, 1985). The results obtained in this study regarding the behavior of individuals high in Need for Approval could be a reflection of studying their behavior in an artificial setting which is markedly different than work settings.

Second, the behavior reported by high Need for Approval individuals could be an artifact of the self-report measures used to collect the data for this study. Quite a bit of research has demonstrated that individuals who score high on the M-CSD scale tend to overreport socially desirable behavior and underreport socially undesirable behavior (Arnold, Feldman & Purbhoo, 1985; Ganster et al., 1983). Individuals may view monitoring and indirect inquiry strategies as covert (and therefore undesirable) and direct inquiry as overt (and therefore desirable). It seems reasonable to consider the possibility that persons high in Need for Approval may be responding about what they consider desirable behavior rather than about their actual behavior.

Third, this dissertation assumed that Need for Approval and Need for Achievement were independent constructs. However, in this study, the M-CSD scale is significantly correlated with Herman's Achievement Motivation scale, which was used to measure Need for Achievement; the scales were correlated .40. Some items of the M-CSD scale, specifically ability (#5, #10, #16, #20), persistence (#3), and

confidence (#22, #26) seem to be measuring traits similar to those of Herman's scale. The similarity of item content of the two scales represents a construct overlap, which might account for the similarity in behavior between individuals high in Need for Approval and those high in Need for Approval. Thus, while the results may reflect actual behavior in real world settings, they may also be partially due to measurement artifacts.

Self-Report Data

This study is based exclusively on self-report data. The results may reflect common method variance because all data here were collected on the same self-report questionnaire (Ganster et al, 1983; Spector, 1987). It is not possible to determine whether and how method variance might be affecting the results in this study. Future research should avoid this potential source of confounding by collecting data from supervisors and coworkers. Collecting data from multiple sources would allow the researcher to compare the variables of interest across different sources and to conduct multitrait-multimethod analyses.

Generalizability

Data for this study were gathered from three hundred seventy-four respondents in three organizations and in five classes at two universities. Preliminary analyses did not reveal any meaningful demographic and organizational

differences related to the main variables across the samples. This suggests that the results should generalize to other samples. However, since it is early in the theory development stage, it is important to replicate this study with different tasks and different organizations and a wide variety of industries.

Causality

This dissertation proposes that individual needs lead to differences in feedback seeking behavior which, in turn, lead to differences in performance. This study used a cross-sectional, correlational design, and no causal analyses such as path analysis or LISREL were used. Therefore, strong inferences about causality are unwarranted.

While the notion of personality as the primary determinant of individual behavior is controversial (Bowers, 1973; Mischel, 1973; Weiss & Adler, 1984), laboratory experiments have provided evidence that individual needs are an important cause of behavior (cf. Atkinson, 1978; Crowne, 1979; Crowne & Marlowe, 1964; Millham & Jacobson, 1978; Strickland, 1977; Weiner, 1984). However, without longitudinal data, strong inferences about individual needs leading to behavior are unwarranted.

Implications for Practice

The results obtained in this study have several important implications for the feedback mechanisms in organizations. First, organizations need to monitor the amount of feedback employees receive. As noted by others (Bernardin & Villanova, 1986; Kopelman, 1986), formal feedback typically needs to be given more frequently. Annual or semiannual performance evaluations (characteristic in all but one of the samples in this study) are not enough; employees want and need more feedback. However, monthly evaluations (which characterized one of the samples in this study) may be too frequent. In this case, employees felt like they were under constant surveillance, and they resented the intrusion by their bosses. Organizations may need to fine-tune the amount of feedback employees receive.

Second, supervisors might want to be more concerned not only with the amount of feedback, but also with the type of feedback that they give to employees. Performance appraisal and feedback researchers (e.g., Bernardin & Villanova, 1986; Kopelman, 1986) have encouraged supervisors to give more specific, cognitive feedback and to give less general, evaluative feedback. They assumed, as was assumed in this study, that the former enhanced performance while the latter did not. The results of this study, however, suggest that individuals want and need both types of feedback. They need to know specifically what they are doing right and wrong and

generally how they are doing. It seems that individuals need feedback that not only helps them to develop specific work behaviors, but also that tells them whether they are on the right track or not. This study indicates that both are beneficial to performance.

Third, supervisors also need to be aware that performance-enhancing feedback can be obtained from many sources. In fact, the results of this study suggest that the supervisor may not be the most effective source of feedback. Since individuals seek feedback from both legitimate and expert sources, employers should make sure that their subordinates get feedback from experts. In many organizations, this means that more employees could be giving feedback to their coworkers.

Conclusion

Giving feedback is an important organizational process which is designed to increase and sustain both organizational and individual performance. This dissertation finds that individuals are not just passive receivers of feedback but rather active seekers of it. The results here confirm the notions that individuals do seek feedback in a variety of ways, that they seek various types of feedback from many different sources, and that these strategies are differentially effective in improving their performance. As research on feedback unfolds, integrating

our understanding of individual feedback seeking behavior without understanding of organizational feedback giving mechanisms will become increasingly important.

APPENDIX 1
RESEARCH QUESTIONNAIRE



COLLEGE OF BUSINESS ADMINISTRATION • UNIVERSITY OF FLORIDA • GAINESVILLE 32611
Department of Management and Administrative Sciences 904 • 392-0163
219 Business Building

EMPLOYEE SURVEY

Fall, 1988

I am a researcher at the University of Florida who is conducting a survey to study the experiences and feelings people have when they receive information about their job performance. The purpose of the study is to examine how people react to different types of information about their performance and what they do to get additional information if they want it.

Your answers are for research purposes only and will be kept confidential. Please answer each question as honestly and frankly as possible.

Thank you for your cooperation.

Nancy R. Klich
Nancy R. Klich
University of Florida

PART I

The following questions ask you about the amount and type of feedback you receive on the job. For each question, please check the answer that best describes your feelings.

1. How often do you receive a formal performance evaluation from your supervisor?
☐ 1. There is no performance evaluation system where I work.
☐ 2. There is a performance evaluation system where I work but I have never received one.
☐ 3. Once a year.
☐ 4. Twice a year.
☐ 5. Three times a year.
☐ 6. Four times a year.
☐ 7. More than four times a year.
2. Does the formal performance evaluation provide you with an overall rating of how well you are doing your job?
☐ Yes ☐ No
3. Does the formal performance evaluation provide you with specific examples of job performance that were used to determine your rating?
☐ Yes ☐ No
4. Does the formal performance evaluation provide you with information about what you are doing right and wrong?
☐ Yes ☐ No
5. Does the formal performance evaluation provide you with suggestions of how to improve your performance?
☐ Yes ☐ No
6. Does the formal performance evaluation provide you with information about how you compare with other employees doing the same job?
☐ Yes ☐ No
7. Which phrase best describes your last performance evaluation?
☐ 1. Unacceptable
☐ 2. Poor
☐ 3. Satisfactory
☐ 4. Very Good
☐ 5. Outstanding

PART II

The following questions ask you about the amount and type of feedback you receive outside of the formal evaluation process. Please check the answer that best describes your feelings.

1. Other than formal evaluations, how frequently does your supervisor tell you how you are doing on your job?
☐ 1. Never
☐ 2. One or two times a year
☐ 3. Several times a year
☐ 4. Several times a month
☐ 5. Several times a week
2. Other than formal evaluations, how frequently does your supervisor suggest how your performance can be improved?
☐ 1. Never
☐ 2. One or two times a year
☐ 3. Several times a year
☐ 4. Several times a month
☐ 5. Several times a week
3. Other than formal evaluations, how frequently does your supervisor compare your performance to that of others?
☐ 1. Never
☐ 2. One or two times a year
☐ 3. Several times a year
☐ 4. Several times a month
☐ 5. Several times a week
4. Other than formal evaluations, how frequently does your supervisor praise you for the job you are doing?
☐ 1. Never
☐ 2. One or two times a year
☐ 3. Several times a year
☐ 4. Several times a month
☐ 5. Several times a week
5. Other than formal evaluations, how frequently does your supervisor criticize you for the job you are doing?
☐ 1. Never
☐ 2. One or two times a year
☐ 3. Several times a year
☐ 4. Several times a month
☐ 5. Several times a week

PART III

The following questions ask for your feelings and opinions about performance information that you receive from your supervisor, either formally or informally. Indicate how much you agree or disagree with each statement by circling the appropriate number from the scale below after the statement.

5 = Strongly Agree
 4 = Agree
 3 = Neutral
 2 = Disagree
 1 = Strongly Disagree

1. I would like it if my supervisor would tell me more often how I am doing on my job. 1 2 3 4 5
2. I would not ask my supervisor about my performance because it might call attention to my performance. 1 2 3 4 5
3. Knowing that I am doing a good job is important to me because I want others to like me. 1 2 3 4 5
4. Comparing my raises and promotions to those of my coworkers is one way that I know how I am doing on the job. 1 2 3 4 5
5. In a performance review, I am more concerned about finding out specific ways of improving my performance rather than just finding out my supervisor's overall evaluation. 1 2 3 4 5
6. I try to figure out how well I am doing by considering how my supervisor treats me. 1 2 3 4 5
7. I do not think a co-worker's opinion of my performance is important because he/she is on the same level as I am. 1 2 3 4 5
8. Specific information about my job performance is more important to me than an overall evaluation. 1 2 3 4 5

- | | | | | | |
|---|---|---|---|---|---|
| 9. I am satisfied with the amount of information my supervisor gives me about my performance. | 1 | 2 | 3 | 4 | 5 |
| 10. When asking for evaluation information from my supervisor I think it is best to ask indirect rather than direct questions. | 1 | 2 | 3 | 4 | 5 |
| 11. No matter how much experience a co-worker has, I do not think his/her opinion about my performance is important. | 1 | 2 | 3 | 4 | 5 |
| 12. Getting respect from my peers is a good indicator of how well I am doing on the job. | 1 | 2 | 3 | 4 | 5 |
| 13. I prefer to be told how I can improve my performance rather than to be told how well I am doing on the job in general. | 1 | 2 | 3 | 4 | 5 |
| 14. A good way to tell how well I am doing on my job is to compare my performance to those who are really considered successful here. | 1 | 2 | 3 | 4 | 5 |
| 15. It is important to know how my job performance compares to that of my co-workers. | 1 | 2 | 3 | 4 | 5 |
| 16. When I want more information about my job performance, I ask my supervisor. | 1 | 2 | 3 | 4 | 5 |
| 17. I prefer to know how I am doing overall rather than to know specific information about my performance. | 1 | 2 | 3 | 4 | 5 |
| 18. If I did not understand how my performance evaluation was determined, I would ask my supervisor for an explanation. | 1 | 2 | 3 | 4 | 5 |
| 19. My supervisor's evaluation of my performance is important because he/she controls my future in the company. | 1 | 2 | 3 | 4 | 5 |

5 = Strongly Agree
 4 = Agree
 3 = Neutral
 2 = Disagree
 1 = Strongly Disagree

- | | | | | | |
|---|---|---|---|---|---|
| 20. I would like more information about what's wrong with my performance than I am currently getting. | 1 | 2 | 3 | 4 | 5 |
| 21. When I want more information about my job performance, I try to hint to my supervisor that I want an evaluation. | 1 | 2 | 3 | 4 | 5 |
| 22. To do the best job, it is useful to ask people who know the job best even if they are co-workers. | 1 | 2 | 3 | 4 | 5 |
| 23. If I am unsure how well I am doing my job, I try to compare my performance to that of others. | 1 | 2 | 3 | 4 | 5 |
| 24. I would like to know more about how my performance compares to my coworkers'. | 1 | 2 | 3 | 4 | 5 |
| 25. I would rather have a respected co-worker comment on my performance than my supervisor. | 1 | 2 | 3 | 4 | 5 |
| 26. I am not hesitant about asking my supervisor or co-workers for advise on improving my performance. | 1 | 2 | 3 | 4 | 5 |
| 27. My supervisor's attitude toward me is a sign of how well I am doing my job. | 1 | 2 | 3 | 4 | 5 |
| 28. If I am uncertain about how I am doing on my job, I would ask my supervisor. | 1 | 2 | 3 | 4 | 5 |
| 29. If I thought my co-workers were more knowledgeable about my job than my boss, I would take my boss's evaluation less seriously. | 1 | 2 | 3 | 4 | 5 |

30. If I was given a choice between getting an overall rating or information on how to improve my job performance I would prefer the overall rating. 1 2 3 4 5
31. I would not ask my supervisor for an evaluation of my performance because I assume that I am doing my job well unless he/she says something to me. 1 2 3 4 5
32. My supervisor's comments on my performance would be more important to me than my co-workers' comments even if my performance were more readily visible to my co-workers. 1 2 3 4 5
33. If I wanted to know how I well I was doing on my job, I would talk to my co-workers about my performance and hope my supervisor over-hears the conversation. 1 2 3 4 5
34. My supervisor's opinion of my performance is important, because I don't want him/her to think badly of me. 1 2 3 4 5
35. I care about knowing how well I am doing my because then I know if I am meeting my own expectations. 1 2 3 4 5
36. Even if I trust my co-worker's more, I think my supervisor's opinion of how I am doing my job is more important. 1 2 3 4 5
37. My own performance expectations are more important to me than my supervisor's. 1 2 3 4 5
38. If I need more information about how well I am doing my job I would not ask my supervisor because he/she might be critical. 1 2 3 4 5
39. I would rather hear positive comments about my performance than negative ones even if the negative ones would help me improve my performance. 1 2 3 4 5

5 = Strongly Agree
 4 = Agree
 3 = Neutral
 2 = Disagree
 1 = Strongly Disagree

- | | | | | | |
|---|---|---|---|---|---|
| 40. I would find it intimidating to ask my supervisor about my job performance. | 1 | 2 | 3 | 4 | 5 |
| 41. I would value my supervisor's opinion of my job performance because he/she is the boss, even if he/she were not the best qualified to judge my performance. | 1 | 2 | 3 | 4 | 5 |
| 42. I would not hesitate to ask my supervisor about my job performance even if I might hear something negative about myself or my performance. | 1 | 2 | 3 | 4 | 5 |
| 43. My supervisor's evaluation of my performance is important, because I want him/her to think well of me. | 1 | 2 | 3 | 4 | 5 |
| 44. I would not ask my supervisor about my job performance because he/she might think I am too pushy or aggressive. | 1 | 2 | 3 | 4 | 5 |
| 45. If my co-workers are more objective than my supervisor, I would rather have their opinion about my performance than my supervisor's opinion. | 1 | 2 | 3 | 4 | 5 |
| 46. I would not ask my supervisor about my performance because someone might think I was brown-nosing. | 1 | 2 | 3 | 4 | 5 |
| 47. Knowing how well I am doing my job is important to me because it tells me how well I am meeting my supervisor's expectations. | 1 | 2 | 3 | 4 | 5 |
| 48. If I need more information about my job performance, the best person to ask would be someone who knows the job best, even if that person is a co-worker. | 1 | 2 | 3 | 4 | 5 |

PART IV

The preferences people have for types of feedback are often related to their general preferences and approaches to life. Listed below are a number of statements concerning personal attitudes and beliefs. Please read each item and circle whether the statement is true or false.

1. Before voting I thoroughly investigate the qualifications of all candidates..... T F
2. I never hesitate to go out of my way to help someone in trouble. T F
3. It is sometimes hard for me to go on with my work if I am not encouraged..... T F
4. I have never intensely disliked anyone..... T F
5. On occasion I have had doubts about my ability to succeed in life..... T F
6. I sometimes feel resentful when I don't get my way..... T F
7. I am always careful about my manner of dress..... T F
8. My table manners at home are as good as when I eat out in a restaurant..... T F
9. If I could get into a movie without paying and be sure I was not seen, I would probably do it..... T F
10. On a few occasions, I have given up doing something because I thought too little of my ability..... T F
11. I like to gossip at times..... T F
12. There have been times when I felt like rebelling against people in authority even though I knew they were right..... T F
13. No matter who I'm talking to, I'm always a good listener..... T F
14. I can remember "playing sick" to get out of something..... T F
15. There have been occasions when I took advantage of someone..... T F

16. I'm always willing to admit it when I make a mistake..... T F
17. I always try to practice what I preach..... T F
18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people..... T F
19. I sometimes try to get even, rather than forgive and forget..... T F
20. When I don't know something I don't at all mind admitting it.... T F
21. I am always courteous, even to people who are disagreeable..... T F
22. At time I have really insisted on having things my own way..... T F
23. There have been occasions when I felt like smashing things..... T F
24. I would never think of letting someone else be punished for my wrongdoings..... T F
25. I never resent being asked to return a favor..... T F
26. I have never been irked when people expressed ideas very different from my own..... T F
27. I never make a long trip without checking the safety of my car.. T F
28. There have been times when I was quite jealous of the good fortune of others..... T F
29. I have almost never felt the urge to tell someone off..... T F
30. I am sometimes irritated by people who ask favors of me..... T F
31. I have never felt that I was punished without cause..... T F
32. I sometimes think when people have a misfortune they only got what they deserved..... T F
33. I have never deliberately said something that hurt someone's feelings..... T F

PART IV

People differ in the types of work situations they like and/or excel in. Below are a series of questions about your preferences. Circle the letter that most closely describes your belief or preference.

1. I would find a life in which one wouldn't have to work at all:
 - A. ideal.
 - B. very pleasant.
 - C. pleasant.
 - D. unpleasant.
 - E. very unpleasant.
2. When I begin something I:
 - A. never carry it to a successful conclusion.
 - B. seldom carry it to a successful conclusion.
 - C. sometimes carry it to a successful conclusion.
 - D. usually carry it to a successful conclusion.
 - E. always carry it to a successful conclusion.
3. When I am working, the demands I make upon myself are:
 - A. very high.
 - B. high.
 - C. not too high.
 - D. low.
 - E. very low.
4. If I was called from my homework to watch television or listen to the radio, then afterward:
 - A. I always went straight back to work.
 - B. I would only take a short pause and then go back to work.
 - C. I would always wait a little before starting again.
 - D. I would find it very difficult to begin again.
 - E. I would usually not go back to work.
5. Good relations with my teachers at high school:
 - A. were appreciated very much.
 - B. were appreciated.
 - C. were thought not to be so important.
 - D. were thought exaggerated in value.
 - E. were thought completely unimportant.
6. At high school I thought perseverance was:
 - A. very unimportant.
 - B. rather unimportant.
 - C. not very important.
 - D. important.
 - E. very important.

7. When I was in high school I thought that to attain a high position in society was:
A. unimportant.
B. of little importance.
C. not so important.
D. rather important.
E. very important.
8. If I have not attained my goal and have not done a task well:
A. I continue to do my best to attain the goal.
B. I exert myself once again to attain the goal.
C. I find it difficult to not lose heart.
D. I'm inclined to give up.
E. I usually give up.
9. When I was in high school I was:
A. extremely ambitious.
B. very ambitious.
C. not so ambitious.
D. a little ambitious.
E. hardly ambitious at all.
10. I usually do:
A. much more than I resolved to do.
B. a bit more than I resolved to do.
C. about what I resolved to do.
D. a little less than I resolved to do.
E. much less than I resolved to do.
11. To begin with homework was:
A. a very great effort.
B. a great effort.
C. somewhat of an effort.
D. not much effort.
E. very little effort.
12. At school I found classmates who studied very hard:
A. very nice.
B. nice.
C. just as nice as others who didn't work as hard.
D. not nice.
E. not nice at all.
13. Working is something:
A. I would rather not do.
B. I don't like doing very much.
C. I would rather do now and then.
D. I like doing.
E. I like doing very much.

14. At school I admired persons who had reached a very high position in life:
A. very much.
B. much.
C. somewhat.
D. little.
E. not at all.
15. When I was still in high school the standards I set myself with regard to my studies were:
A. very high.
B. high.
C. average.
D. low.
E. very low.
16. To spend a long time preparing for an important task:
A. really is senseless.
B. often is rather rash.
C. can often be useful.
D. testifies to a sense of reality.
E. is necessary to succeed.
17. For life's extra pleasures:
A. I usually have no time.
B. I often have no time.
C. I sometimes have too little time.
D. I usually have enough time.
E. I always have time.
18. Organizing is something:
A. I like doing very much.
B. I like doing.
C. I don't mind doing.
D. I don't like doing very much.
E. I don't like doing at all.
19. When doing something difficult:
A. I give it up very quickly.
B. I give it up quickly.
C. I give it up rather quickly.
D. I don't give it up too soon.
E. I usually see it through.
20. When the teacher gave lessons at school:
A. I usually set my heart on doing my best and making a favorable impression.
B. I usually paid great attention to the things being said.
C. I sometimes paid attention to the things being said.
D. my thoughts often strayed to other things.
E. I was more interested in things that had nothing do with school.

21. I can work at something without getting tired for:
A. a very long time.
B. a long time.
C. not too long a time.
D. only a short time.
E. only a very short time.
22. Work that requires great responsibility is something that:
A. I would like to do very much.
B. I would like to do sometimes.
C. I would only do if I was paid well.
D. I don't think I would be capable of doing.
E. is completely unattractive to me.
23. I usually am:
A. very busy.
B. busy.
C. not so busy.
D. not busy.
E. not busy at all.
24. Other people think I:
A. work very hard.
B. work hard.
C. work pretty hard.
D. don't work very hard.
E. don't work hard.
25. At school they thought I was:
A. very diligent.
B. diligent.
C. not always diligent.
D. rather easy-going.
E. very easy-going.
26. I am bored
A. very often.
B. often.
C. sometimes.
D. hardly ever.
E. never.
27. In general I am:
A. very strongly future-oriented.
B. strongly future-oriented.
C. somewhat future-oriented.
D. not so strongly future-oriented.
E. not at all future-oriented.
28. Shopping is something:
A. I like very much.
B. I like.
C. I don't mind.
D. I don't like.
E. I hate.

PART VI

The following questions ask for general demographic information as well as information about your current job. Please answer each question by filling in the requested information or by checking the most appropriate response.

1. What is your age? _____ years
2. What is your gender? (please check one)
 - ☐ 1. Male
 - ☐ 2. Female
3. What is your ethnic background? (please check one)
 - ☐ 1. White
 - ☐ 2. Black
 - ☐ 3. Other (please specify): _____
4. What is your marital status? (please check one)
 - ☐ 1. Single
 - ☐ 2. Married
 - ☐ 3. Separated or Divorced
 - ☐ 4. Widow/Widower
5. Please check the highest educational level you have attained:
 - ☐ 1. Some high school
 - ☐ 2. Completed high school
 - ☐ 3. Some college
 - ☐ 4. Completed junior college
 - ☐ 5. Completed 4-year college
 - ☐ 6. Some graduate or professional school
 - ☐ 7. Completed graduate or professional school
6. Please check the job category that best describes the type of job you do.

| | |
|--|---|
| <input type="checkbox"/> 1. Management | <input type="checkbox"/> 7. Editor/Reporter |
| <input type="checkbox"/> 2. Clerical/Bookkeeping | <input type="checkbox"/> 8. Medical Technician |
| <input type="checkbox"/> 3. Secretarial | <input type="checkbox"/> 9. Professional (please specify) |
| <input type="checkbox"/> 4. Production | <input type="checkbox"/> 10. Other (please specify) |
| <input type="checkbox"/> 5. Customer Service | _____ |
| <input type="checkbox"/> 6. Sales | _____ |
7. Do you work:
 - ☐ 1. Full time.
 - ☐ 2. 21 to 39 hours a week.
 - ☐ 3. 20 or less hours a week.
8. Do you supervise other employees? _____ yes _____ no
9. How long have you worked in your current job? _____ years.
(round to nearest year)
10. How long have you worked for this company? _____ years.
(round to nearest year)
11. How long have you worked for your current supervisor? _____ years.
(round to nearest year)

(please turn this page to complete the survey)

PART VII

Please jot down any other thoughts you might have about your experiences and feelings when you receive information about your job performance.

APPENDIX 2
MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE

1. Before voting I thoroughly investigate the qualifications of all candidates.
2. I never hesitate to go out of my way to help someone in trouble.
3. It is sometimes hard for me to go on with my work if I am not encouraged.
4. I have never intensely disliked anyone.
5. On occasion I have had doubts about my ability to succeed in life.
6. I sometimes feel resentful when I don't get my way.
7. I am always careful about my manner of dress.
8. My table manners at home are as good as when I eat out in a restaurant.
9. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
10. On a few occasions, I have given up doing something because I thought too little of my ability.
11. I like to gossip at times.
12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
13. No matter who I'm talking to, I'm always a good listener.
14. I can remember "playing sick" to get out of something.
15. There have been occasions when I took advantage of someone.
16. I'm always willing to admit it when I make a mistake.
17. I always try to practice what I preach.
18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.

19. I sometimes try to get even, rather than forgive and forget.
20. When I don't know something I don't at all mind admitting it.
21. I am always courteous, even to people who are disagreeable.
22. At time I have really insisted on having things my own way.
23. There have been occasions when I felt like smashing things.
24. I would never think of letting someone else be punished for my wrongdoings.
25. I never resent being asked to return a favor.
26. I have never been irked when people expressed ideas very different from my own.
27. I never make a long trip without checking the safety of my car.
28. There have been times when I was quite jealous of the good fortune of others.
29. I have almost never felt the urge to tell someone off.
30. I am sometimes irritated by people who ask favors of me.
31. I have never felt that I was punished without cause.
32. I sometimes think when people have a misfortune they only got what they deserved.
33. I have never deliberately said something that hurt someone's feelings.

APPENDIX 3
HERMAN'S ACHIEVEMENT MOTIVATION SCALE

1. I would find a life in which one wouldn't have to work at all:
 - A. ideal.
 - B. very pleasant.
 - C. pleasant.
 - D. unpleasant.
 - E. very unpleasant.
2. When I begin something I:
 - A. never carry it to a successful conclusion.
 - B. seldom carry it to a successful conclusion.
 - C. sometimes carry it to a successful conclusion.
 - D. usually carry it to a successful conclusion.
 - E. always carry it to a successful conclusion.
3. When I am working, the demands I make upon myself are:
 - A. very high.
 - B. high.
 - C. not too high.
 - D. low.
 - E. very low.
4. If I was called from my homework to watch television or listen to the radio, then afterward:
 - A. I always went straight back to work.
 - B. I would only take a short pause and then go back to work.
 - C. I would always wait a little before starting again.
 - D. I would find it very difficult to begin again.
 - E. I would usually not go back to work.
5. Good relations with my teachers at high school:
 - A. were appreciated very much.
 - B. were appreciated.
 - C. were thought not to be so important.
 - D. were thought exaggerated in value.
 - E. were thought completely unimportant.
6. At high school I thought perseverance was:
 - A. very unimportant.
 - B. rather unimportant.
 - C. not very important.
 - D. important.
 - E. very important.

7. When I was in high school I thought that to attain a high position in society was:
 - A. unimportant.
 - B. of little importance.
 - C. not so important.
 - D. rather important.
 - E. very important.
8. If I have not attained my goal and have not done a task well:
 - A. I continue to do my best to attain the goal.
 - B. I exert myself once again to attain the goal.
 - C. I find it difficult to not lose heart.
 - D. I'm inclined to give up.
 - E. I usually give up.
9. When I was in high school I was:
 - A. extremely ambitious.
 - B. very ambitious.
 - C. not so ambitious.
 - D. a little ambitious.
 - E. hardly ambitious at all.
10. I usually do:
 - A. much more than I resolved to do.
 - B. a bit more than I resolved to do.
 - C. about what I resolved to do.
 - D. a little less than I resolved to do.
 - E. much less than I resolved to do.
11. To begin with homework was:
 - A. a very great effort.
 - B. a great effort.
 - C. somewhat of an effort.
 - D. not much effort.
 - E. very little effort.
12. At school I found classmates who studied very hard:
 - A. very nice.
 - B. nice.
 - C. just as nice as others who didn't work as hard.
 - D. not nice.
 - E. not nice at all.
13. Working is something:
 - A. I would rather not do.
 - B. I don't like doing very much.
 - C. I would rather do now and then.
 - D. I like doing.
 - E. I like doing very much.

14. At school I admired persons who had reached a very high position in life:
 - A. very much.
 - B. much.
 - C. somewhat.
 - D. little.
 - E. not at all.
15. When I was still in high school the standards I set myself with regard to my studies were:
 - A. very high.
 - B. high
 - C. average.
 - D. low.
 - E. very low.
16. To spend a long time preparing for an important task:
 - A. really is senseless.
 - B. often is rather rash.
 - C. can often be useful.
 - D. testifies to a sense of reality.
 - E. is necessary to succeed.
17. For life's extra pleasures:
 - A. I usually have no time.
 - B. I often have no time.
 - C. I sometimes have too little time.
 - D. I usually have enough time.
 - E. I always have time.
18. Organizing is something:
 - A. I like doing very much.
 - B. I like doing.
 - C. I don't mind doing.
 - D. I don't like doing very much.
 - E. I don't like doing at all.
19. When doing something difficult:
 - A. I give it up very quickly.
 - B. I give it up quickly.
 - C. I give it up rather quickly.
 - D. I don't give it up too soon.
 - E. I usually see it through.

20. When the teacher gave lessons at school:
- A. I usually set my heart on doing my best and making a favorable impression.
 - B. I usually paid great attention to the things being said.
 - C. I sometimes paid attention to the things being said.
 - D. my thoughts often strayed to other things.
 - E. I was more interested in things that had nothing to do with school.
21. I can work at something without getting tired for:
- A. a very long time.
 - B. a long time.
 - C. not too long a time.
 - D. only a short time.
 - E. only a very short time.
22. Work that requires great responsibility is something that:
- A. I would like to do very much.
 - B. I would like to do sometimes.
 - C. I would only do if I was paid well.
 - D. I don't think I would be capable of doing.
 - E. is completely unattractive to me.
23. I usually am:
- A. very busy.
 - B. busy.
 - C. not so busy.
 - D. not busy.
 - E. not busy at all.
24. Other people think I:
- A. work very hard.
 - B. work hard.
 - C. work pretty hard.
 - D. don't work very hard.
 - E. don't work hard.
25. At school they thought I was:
- A. very diligent.
 - B. diligent.
 - C. not always diligent.
 - D. rather easy-going.
 - E. very easy-going.
26. I am bored
- A. very often.
 - B. often.
 - C. sometimes.
 - D. hardly ever.
 - E. never.

27. In general I am:
- A. very strongly future-oriented.
 - B. strongly future-oriented.
 - C. somewhat future-oriented.
 - D. not so strongly future-oriented.
 - E. not at all future-oriented.
28. Shopping is something:
- A. I like very much.
 - B. I like.
 - C. I don't mind.
 - D. I don't like.
 - E. I hate.

APPENDIX 4
ITEM GENERATION QUESTIONNAIRE

1. Your supervisor evaluates your job performance every six months and gives you an overall rating but no specific information. What would you do to get more specific information?
2. Your supervisor evaluates your job performance every six months and gives you specific information about your job performance, but does not give you an overall rating. What would you do?
3. Your supervisor does not give a formal evaluation about your job performance, and he/she does not tell you how you are doing on your job. What would you do?
4. Your supervisor does not give a formal evaluation about your job performance, and he/she does not tell you how you are doing on your job. One of your co-workers suggests that you should ask your supervisor how you are doing. How do you feel about this suggestion?
5. How would you feel if one of your co-workers offered an opinion about your job performance? Why?
6. How would you feel if one of your co-workers offered a suggestion on how to improve your job performance? Why?
7. Under what circumstances would you ask your supervisor for information about your job performance?
8. With whom would you be most likely to discuss your job performance and why?
9. If you needed more information from your supervisor about your job performance, what are some reasons why you would not ask him or her?
10. Under what circumstances would you ask your co-workers for information about your performance?
11. Which is more important to you: an overall performance rating, specific examples of job performance, information on how to improve performance, or how your rating compares with ratings of others? Why?
12. Why is knowledge about your job performance important to you?
13. What information about performance do you feel is the most useful to you? Why?

14. What information about performance do you feel is the least useful to you? Why?
15. Which is most important to you: your supervisor's opinion of how well you are doing your job, your own opinion of how well you are doing your job, or your co-worker's opinion of how well you are doing your job? Why?
16. What would you do if your opinion of how well you are doing on your job was different than your supervisor's opinion? Why?

APPENDIX 5
THREE FACTOR SOLUTION FOR M-CSD SCALE

| Item | Factor 1 | Factor 2 | Factor 3 |
|------|----------|----------|----------|
| 1 | .43 | .01 | -.14 |
| 2 | .49 | .02 | -.04 |
| 3 | .35 | -.10 | -.20 |
| 4 | .43 | -.16 | .23 |
| 5 | .43 | -.17 | -.11 |
| 6 | .57 | -.26 | -.02 |
| 7 | .45 | .07 | .13 |
| 8 | .50 | .11 | .22 |
| 9 | .34 | .13 | -.14 |
| 10 | .41 | -.16 | -.17 |
| 11 | .33 | -.27 | -.01 |
| 12 | .54 | -.16 | .07 |
| 13 | .56 | .07 | .15 |
| 14 | .48 | -.19 | -.19 |
| 15 | .60 | -.12 | -.08 |
| 16 | .59 | .15 | -.24 |
| 17 | .44 | .16 | -.21 |
| 18 | .16 | .04 | .09 |
| 19 | .49 | -.05 | .07 |
| 20 | .48 | .27 | -.21 |
| 21 | .46 | .06 | .29 |
| 22 | .34 | -.31 | .06 |
| 23 | .39 | -.21 | .18 |
| 24 | .48 | .45 | -.02 |
| 25 | .37 | .38 | .12 |
| 26 | .46 | .02 | .08 |
| 27 | .38 | .17 | -.02 |
| 28 | .51 | -.17 | -.05 |
| 29 | .24 | -.17 | .03 |
| 30 | .42 | .08 | .16 |
| 31 | .36 | -.04 | .03 |
| 32 | .33 | .18 | .20 |
| 33 | .50 | -.05 | .00 |

APPENDIX 6
FOUR FACTOR SOLUTION FOR HERMAN'S ACHIEVEMENT
MOTIVATION SCALE

| Item | Factor 1 | Factor 2 | Factor 3 | Factor 4 |
|------|----------|----------|----------|----------|
| 1 | .30 | -.35 | -.11 | .36 |
| 2 | .47 | -.17 | -.17 | -.31 |
| 3 | .53 | -.28 | -.03 | -.11 |
| 4 | .45 | -.17 | .02 | .01 |
| 5 | .45 | .28 | -.07 | .11 |
| 6 | .28 | .11 | .04 | .04 |
| 7 | .25 | .43 | -.39 | .00 |
| 8 | .44 | -.19 | -.08 | -.20 |
| 9 | .53 | .36 | .12 | -.03 |
| 10 | .55 | -.25 | -.10 | -.21 |
| 11 | .23 | -.06 | .34 | .16 |
| 12 | .28 | .22 | -.05 | -.10 |
| 13 | .38 | -.33 | -.20 | .41 |
| 14 | .42 | .45 | -.43 | .11 |
| 15 | .63 | .33 | .28 | -.15 |
| 16 | .31 | .01 | -.01 | .20 |
| 17 | .06 | -.14 | .07 | -.04 |
| 18 | .37 | -.19 | -.10 | -.01 |
| 19 | .48 | -.30 | -.08 | -.27 |
| 20 | .51 | .23 | .17 | -.03 |
| 21 | .35 | -.33 | .10 | -.03 |
| 22 | -.45 | .13 | .19 | -.11 |
| 23 | .52 | -.18 | .06 | .05 |
| 24 | .51 | -.19 | .08 | .08 |
| 25 | .47 | .18 | .43 | .24 |
| 26 | .20 | -.15 | .09 | .05 |
| 27 | .51 | -.09 | -.02 | .01 |
| 28 | -.15 | -.28 | .07 | -.08 |

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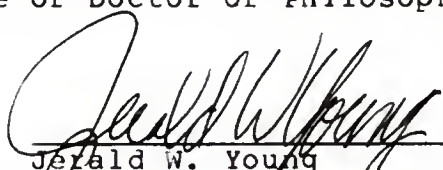
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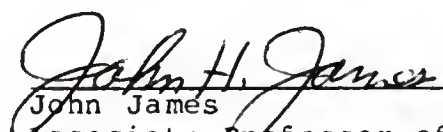
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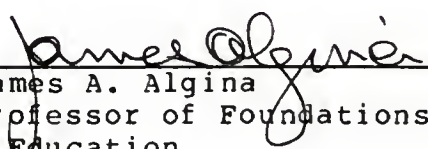
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